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OF

Delegated Representatives

OF

Master Cotton Spinners' and Manufacturers' Associations,

HELD IN THE LARGE HALL,

KÜNSTLERVEREINSHAUS, DOMSHEIDE,
BREMEN - - - June 25th to 27th, 1906.

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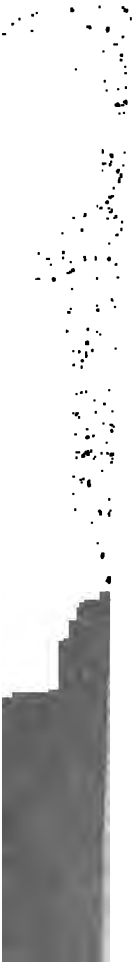

THE

THIRD INTERNATIONAL CONGRESS

OF

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Master Cotton Spinners' and Manufacturers' Associations,

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KÜNSTLERVEREINSHAUS, DOMSHEIDE,
BREMEN - - - June 25th to 27th, 1906.

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INDEX.

PREFACE 4

INTERNATIONAL COMMITTEE 5

LIST OF REPRESENTATIVES 6

OPENING MEETING 11

CHAIRMAN'S REPORT 14

COTTON EXCHANGES AND THEIR RULES 19

COTTON-GROWING INVESTIGATION COMMISSION .. 27

RULES OF COTTON EXCHANGES ON THE CONTINENT 31

DAMP IN COTTON 45

THE UNION OF PORTUGUESE COTTON SPINNERS .. 52

SECOND DAY'S PROCEEDINGS 61

PROPOSALS FOR REGULATING THE COTTON SUPPLY .. 62

COTTON STATISTICS 92

COTTON STATISTICS AND THE PRICE OF COTTON .. 94

THIRD DAY'S PROCEEDINGS 100

THE WORK OF THE BRITISH COTTON-GROWING ASSOCIATION 100

COTTON GROWING IN THE GERMAN COLONIES .. 111

COTTON GROWING IN THE FRENCH COLONIES .. 114

COTTON GROWING IN SPAIN 118

COTTON GROWING IN THE PORTUGUESE COLONIES .. 129

THE LEVY 138

PROGRAMME 141

APPENDIX :—

COTTON GROWING IN INDIA 145

NOTE FROM FRENCH SPINNERS 146

EXCERPTS FROM RULES OF AMERICAN COTTON EXCHANGES 148

STATUTES OF THE INTERNATIONAL COTTON FEDERATION 177

COPIES OF THE STATISTICAL CIRCULARS 183

The International Committee, in presenting the Report of the Third International Congress of Delegated Representatives of Master Cotton Spinners' and Manufacturers' Associations, which was held at Bremen, June 25 to 27, has pleasure in stating that Delegates were present from Associations in several countries not previously represented at the Congresses. Although these Associations have not yet formally become affiliated with the International Federation, it is believed that not only they, but the Associations in all cotton-using countries, will ere long become associated with it.

Like its predecessors the Bremen Congress was an unqualified success, the utmost cordiality prevailing throughout its proceedings.

Reference is made in the Chairman's Address to the Reception of the Committee in Paris by the ex-President of the French Republic; and the International Movement has undoubtedly received a further impetus by the reception accorded to the Committee on the day following the Congress by H.I.M. the German Emperor on board the ss. "Hamburg" in Kiel Harbour.

No prefatory note of the Bremen Congress would be complete without reference to the munificent hospitality displayed by the Directors and Managers of the Norddeutscher Lloyd, in placing their liner—ss. "Gneisenau"—at the disposal of the Delegates, at the conclusion of the Congress, for a three days cruise, and thus providing a unique opportunity for friendly intercourse amongst the numerous nationalities represented at the Congress.

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Groupe Cotonnier du Nord.

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G. DUVILLIER-MOTTE.

Union de l'Industrie Cotonnière de Roanne, Thizy et la Région.

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JOHN SYZ, President. F. JENNY-DÜRST.
ED. BUHLER. ERNST LANG.
PAUL JAEGGY. HANS WUNDERLY.

Chief Official Reporter: W. A. BALMFORTH.
German Reporter: Dr. F. THOMA.
French Reporter: F. KUHWARTH.

OFFICIAL REPORT.

OF THE PROCEEDINGS OF THE THIRD INTERNATIONAL CONGRESS OF DELEGATED REPRESENTATIVES OF MASTER COTTON SPINNERS' AND MANUFACTURERS' ASSOCIATIONS HELD IN BREMEN ON JUNE 25TH, 26TH, AND 27TH, 1906.

The proceedings began in the large Hall of the Künstlervereinshaus, when Herr KOMMERZIENRAT FERD. GROSS (Germany), President of the Congress, delivered the following address, in English, French and German :—

In accordance with the statutes of the International Cotton Federation, it is my pleasant duty to open the Third International Congress of Spinners and Manufacturers ; and to all I extend a most hearty welcome to Germany.

First of all, I desire to greet our guests of honour, especially the President of the Senate, Burgomaster Dr. Barkhausen, who, by his presence at our opening meeting, shows in the most gratifying manner the interest which the Bremen Government is taking in this Congress.

I also extend my greetings to the Mayor, Mr. Markus ; to the Chairman of the City Council ; to the Chairmen of the Bremen Chambers of Commerce, of Industry, and of Agriculture ; to the President and Vice-President of the Bremen Cotton Exchange ; and to the General Manager of the North German Lloyd, Dr. Wiegand.

We are proud that gentlemen of such distinction honour our first meeting ; and I thank them for their presence.

I am glad to see so many of my colleagues from England and France, because in selecting the city of Bremen for our Congress, not the least important of our ideas was, that those gentlemen having Cotton Exchanges in their own countries might perhaps be able to learn from the Bremen Cotton Exchange that co-operation between Cotton Exchanges and cotton spinners produces results gratifying to both parties, and particularly to the spinning section of the industry.

We shall be sincerely glad if our colleagues from abroad take from this Congress information and ideas which will be useful to them in conducting their businesses.

I know very well that foreign papers, when speaking of the German industry in general, do not always show a very friendly spirit, and often complain about German competition. Well, gentlemen, I consider competition in all branches an excellent thing. It keeps the people fresh and industrious, and in commerce and industry all progress which is made can nearly always be traced to competition. Far-seeing men have worked strenuously of late to remove the ill-feeling sometimes apparent in the competition between nations, holding that the first consideration for the welfare of all industry is the peace of the world, and the lasting good-will of the nations. But just as between individuals, so between great nations, permanent good-will can only be secured by mutual respect shown everywhere and at all times. That great object is obtained mainly through working together, and therefore it is my opinion that a Congress such as ours does more to further goodwill and mutual esteem than a good many conventions which have lately been held.

We do not meet only to make more or less pretty speeches, but to promote, through honest co-operation, our common interests, to adjust present controversies, to smooth the path for the settlement of any future controversies, and thus further the welfare and prosperity of an industry equally important for all countries.

These are the peaceful and peace-furthering intentions which are before our eyes, and I hope that our negotiations will always be carried on in this spirit.

I herewith declare the Third International Congress opened.

Addresses of welcome to the members of the Congress were then given by :—

Dr. BARKHAUSEN, President of the Senate, and Burgomaster of Bremen.

Herr ED. MICHAELSON, President of the Bremen Chamber of Commerce.

Herr GEO. PLATE, President of the Bremen Cotton Exchange, and President of the Norddeutscher Lloyd.

Dr. BARKHAUSEN : In the name of the Senate of the free Hansatown of Bremen, I bid you a very hearty welcome. It is a special honour and pleasure for our city to have the Third International Cotton Congress of Master Cotton Spinners and Manufacturers in our midst, the first that has been held on German soil. The honour is all the higher as the first Congress had

been held in that beautiful city of Zurich, and the second in Manchester, that mighty cotton emporium of England. If modesty will permit, we may take it that your selection of Bremen is a proof to us that our interest in the cotton trade and industry, and especially the Institution of the Bremen Cotton Exchange, have not been appreciated in Germany alone, but also throughout the world. We hope that you will like our ancient city, and that you will look back upon the few days spent in Bremen with pleasure. I conclude my few words of welcome with the fervent wish that the Congress Sittings will be of real service to your important industry.

Herr Ed. Michaelson: As the Senate of Bremen has welcomed you, so the Bremen Chamber of Commerce offers you its best wishes and bids you a cordial welcome. When we heard a year ago that it had been decided to hold the Third International Congress in Germany we had the fervent desire that Bremen would be selected as the next meeting place. We are, nevertheless, quite aware that we cannot offer you as much as Zurich or Manchester did, the former city excelling ours by its beauty, and the latter by the magnitude of its position in the cotton world. However, we, the Bremen Chamber of Commerce and the Bremen Cotton Exchange, considered ourselves justified in addressing an invitation to your committee, in view of the importance of Bremen as the centre of the cotton trade in Germany and the seat of the principal continental Cotton Exchange. The interests which unite us with your industry, you will see, are numerous and important. Your Committee having accepted with readiness our invitation, I have the honour to express to you in the name of the Bremen Chamber of Commerce our heartfelt thanks and pleasure. We look upon this acceptance not alone as a distinction, but as an appreciation of the Bremen Cotton Trade. I express likewise the hope that you will feel at home with us and will take back with you pleasant reminiscences; but my foremost wish is that your discussions will be crowned with success and promote the welfare of the industry.

Herr Geo. Plate: If I venture to address you in English, it is because I have been assured that the greater part of this assembly understand that language, and as a practical business man I told myself that what can be done in one way should not be split up into two or three. Permit me to welcome you here as the Chairman of the Bremen Cotton Exchange.

You will naturally understand that, at one time, we wondered why Bremen should have been selected for this Congress, because there is nothing in the way of spinning in Bremen or anywhere near. But we found very soon that the selectors of Bremen had been our German spinning friends—our colleagues of the combination of spinners and cotton dealers founded in this city at a time when we had great trouble, not alone in Bremen, but in other principal cotton markets, to find out a method of combining the confidence of the buyers with the credit of the sellers.

It came to us as an inspiration that the only way to combine these two interests would be to put them together in such a way that the one should control the other. We found that there was no possibility of gaining confidence with our spinners, nor did our spinners believe there was a chance of gaining confidence with our dealers unless a system was arrived at which would produce the combination actually created in the Bremen Cotton Exchange, where spinners and dealers work together under peaceful conditions and in a most efficient manner.

The number of spinner members in our Cotton Exchange is more than double the number of our dealers, and that will enable you more than anything else to exactly understand what we have arrived at. I confess I never heard of any combination between trade and industry similar to this, the Bremen Cotton Exchange.

I feel certain that the more you enter into the details of the system that obtains in the Bremen Cotton Exchange, the more you will find that we have, after very severe strife, arrived at a solution which seems perfect.

I am glad of the opportunity of wishing you success. You represent the most powerful industry of the world. You represent spinning and weaving, you represent the civilised world, because the civilised world spins and weaves.

May all your resolutions and decisions turn out to your and our mutual benefit, and may they promote the welfare of the world.

Mr. C. W. MACARA (England), Chairman of the International Committee, before presenting his report on the work of the International Committee during the year, remarked that Bremen was now importing 2,000,000 bales of cotton yearly. The Manchester Cotton Association which was inaugurated about ten years after the Bremen Cotton Exchange, has not yet succeeded in importing 1,000,000 bales per annum.

Like the Bremen Association, the Manchester Cotton Association was largely composed of spinners. He hoped that what Herr Plate had said would be fully realised, and that they would acquire a great amount of information which would be of the utmost value to them in bringing those who handled the raw material into closer touch with those who used it. He also hoped that all would realise that their interests were not antagonistic, and that they must work together if they would do their best for the industry on which they were mutually dependent.

MR. MACARA, proceeding with his report, said :—

Great movements are usually slow in their development, and it would be unwise to expect that the International Federation of Master Cotton Spinners' and Manufacturers' Associations will be an exception to the general rule. Impatience for tangible results, and consequent discouragement because they are not attained as quickly as those who but vaguely realise the difficulties which have to be surmounted may expect, are dangers which have to be guarded against.

But for the recent crisis, brought about by the cotton machinery of the world having temporarily outrun the yield of the cotton fields, it is doubtful if the movement to bring into one great Federation the associations of cotton employers in the various cotton-using countries would ever have been attempted. It soon became apparent that the situation thus created, with all its attendant abuses, would, if not energetically dealt with, result in disaster to a world's industry and entail suffering upon millions of people. In having materially mitigated the difficulties of a most trying time, and in preparing the way for the subsequent prosperity, the International Cotton Federation may claim to have justified its existence.

Since the establishment of the International Federation of Master Cotton Spinners' and Manufacturers' Associations at the second International Congress held in the Town Hall, Manchester, in June, 1905, the Committee has met for the transaction of business in London in July, in Paris in November, and in Berlin last week. Grateful acknowledgment has again to be made of the valuable assistance rendered by the British Secretary of State for Foreign Affairs in forwarding the official reports of the second International Congress to the heads of States in Europe, Asia, and America. Courteous and appreciative communications have been received, through the British Foreign Office, from all the recipients, who evinced considerable interest in a movement which is generally admitted to be not only helping forward the welfare of a world's industry, but also promoting friendly relations among the nations. The marked attention received by the Committee of the International Cotton Federation from the governments of the countries in which its meetings have been held, is most encouraging. The first among the Heads of States to officially recognise this international movement was the highly esteemed ex-President of the French Republic, M. Loubet. The members of the Committee will always remember with gratitude the cordial manner in which M. Loubet welcomed them at the Elysée last November, and the

genuine interest he displayed in the work undertaken on behalf of the great cotton industry; his assurance of assistance in whatever way it could be rendered acted as a great encouragement to the Committee in the pursuance of their work. It had also a most powerful effect in bringing the magnitude and importance of the International Cotton Federation's aims before all the nations interested either in the cultivation of the raw material or in the manufacture of a product which plays the most prominent part in clothing the peoples of the world.

The Committee also had the honour when in Paris of being received by M. Rouvier, Président du Conseil, M. Clémentel, Colonial Minister, M. Chapsal, Director of Commerce, and M. Vassilière, Director of Agriculture. M. Méline rendered valuable assistance in providing accommodation for the meetings of the Committee in Paris, and by other attentions. The admirable arrangements made by M. Casimir Berger, who represents France on the Committee, must also be most cordially acknowledged. Another interesting feature of the reception accorded to the Committee by the French Government was the carrying out of a suggestion made previously by a prominent official of the British Government that the opportunity should not be lost of impressing upon the French Government the desirability of giving support to the scheme inaugurated by his Majesty the King of Italy for the establishment of an International Agricultural Institute. Not only was this emphasized in the interview with the Director of Agriculture, M. Vassilière, who expressed himself in entire sympathy with the object, but the Committee unanimously adopted a resolution pledging its members to use their utmost endeavours to secure the support of their respective governments for the King of Italy's scheme, which it is felt when fully developed will be of great value to the cotton and other kindred industries. It is satisfactory to be able to announce that its accomplishment is now practically assured, and that more than forty nations, including those represented in the International Cotton Federation, have signed adherence to the scheme, and have agreed to contribute towards the cost of carrying out its objects. When in full operation, the International Agricultural Institute will, amongst other valuable work, aim at the collection and distribution of technical and economic information regarding improvements in cultivation, and the furnishing of trustworthy statistics of the production both of food and of the raw materials necessary for carrying on the great industries. This information, when available, together with the statistics of the annual consumption of cotton during each season and of the stocks of cotton in the hands of spinners on March 1st and September 1st, the tabulation of which has been successfully undertaken by the International Cotton Federation, will place in the hands of the users of cotton statistical information which formerly it would scarcely have been thought possible to obtain. Such information as this must in the future act as a powerful deterrent to the operations of speculators which have been so detrimental to the best interests of the industry. No doubt during the discussions which will take place at the present Congress proposals will be made for the improvement of the compilations just mentioned, as it must be admitted that the more complete these statistics become, the more valuable they will be to the trade.

At the meetings of the Committee in Berlin on June 22nd and 23rd, business of considerable importance was discussed, and the receptions by Count Posadowsky, Minister of the Interior, and by the Hereditary Prince von Hohenlohe, Colonial Minister, indicating their interest in the work of the International Cotton Federation, must act as another powerful incentive to prosecute this work with vigour. Prince von Bulow had expressed his desire to welcome the Committee, but was unfortunately prevented by his protracted illness from doing so.

The operations of the European Colonial Cotton Growing Associations have been carried on with increased energy during the past twelve months. The work of these associations is beyond all praise, and it is to be hoped that the difficulties which have to be overcome will gradually be surmounted with the assistance of the respective governments. Past experience shows that the development of new cotton fields must necessarily be slow, and it is to be hoped that those who have devoted themselves so heartily to this work will receive all the encouragement that they deserve. Whilst devoting full attention to this work, however, it would be unwise to neglect the possibilities of developing the present sources of cotton supply, and with this end in view a Cotton Investigation Commission was appointed a few months ago by a number of leading English firms to investigate the conditions under which American cotton is grown, marketed, and transported. The members of this Commission proceeded to the United States, and before beginning their southern tour they were joined by Mr. J. R. MacColl, president of the New England Cotton Manufacturers' Association, who has given great attention to the possibility of developing the cotton fields of the Southern States. They were received by Sir Mortimer Durand, the British Ambassador at Washington, and subsequently by President Roosevelt, both of whom expressed the liveliest interest in their work. The report of this Commission when completed will contain a vast amount of valuable information which will ultimately prove of the greatest service. It may be stated briefly that in the opinion of the Commission there is an unlimited field for the cultivation of cotton in the Southern States — indeed, there are millions of acres of suitable land unused—and that the labour and other difficulties are no greater than have been surmounted in the manufacturing of cotton. Mr. H. W. Macalister, who acted as chairman of the Investigation Commission, is present as a delegate to the Congress, and in the paper which he will read will give some account of the Commission's work. As has been pointed out repeatedly, the development of the cotton industry of the world has been enormous during the past quarter of a century, and there is no reason to doubt that with the spread of civilisation and the increase and wider distribution of wealth this development is likely to proceed on an increasingly rapid scale. Prudence therefore dictates that the cultivation of the raw material should be carried on to the fullest extent wherever climatic and other conditions are favourable.

It will be remembered that invitations to the first and second International Cotton Congresses were sent to the two associations of cotton manufacturers in America, viz., the New England Cotton Manu-

facturers' Association, with head-quarters in Boston, and the American Manufacturers' Association, with head-quarters in Charlotte, but these Associations were unable to arrange for direct representation. The eightieth convention of the former association was fixed for April 25th and 26th of this year, and a Conference of Cotton Growers and Spinners, the first of its kind, was arranged to be held in Washington on May 1st. The International Committee had before them at their meeting in Paris a very cordial invitation to send delegates from the International Cotton Federation to be present at both these meetings. The Committee decided to accept these invitations, and appointed Mr. John Smethurst, the hon. secretary, to represent the International Cotton Federation, and at the same time to convey a personal invitation to both the American associations to send delegates to this, the third International Cotton Congress. A crisis in connection with trade matters arose in England, and Mr. Smethurst, who is secretary to the English Master Cotton Spinners' Federation, was unable to proceed to the United States as arranged. With the approval of the members of the Committee of the International Cotton Federation, Mr. Macalister, who has been associated with this body from its inception, and who was at the time in America with the Cotton Investigation Commission, was requested to act instead of Mr. Smethurst. Mr. Macalister attended both the convention in Boston and the conference in Washington, and conveyed the invitation from the International Cotton Federation to the American associations, to whom a most cordial welcome is extended.

This resumé constitutes the main features of the work of the International Cotton Federation during the past twelve months. It is impossible to contemplate such work without being deeply impressed by the immense possibilities there are in dealing internationally with the many problems which have to be satisfactorily solved if the development of this world-wide industry is to proceed uninterruptedly and successfully. It also becomes clearer each succeeding year how hopeless it is for the individual, the association, or even the nation, to deal single-handed with vast issues which affect more or less the destinies of the many millions who are dependent on this great industry. In addition to all this, these friendly meetings of the representatives of so many nations engaged in the same industry, to discuss the best means of dealing with mutual difficulties and dangers, are invaluable in removing national jealousies, and in promoting peace and goodwill.

The report of the Committee was unanimously adopted by the Congress.

The financial statement, duly audited, for the year ending December 31st, 1905, and a supplementary statement from December 31st, 1905, to June 20th, 1906, were then presented by M. C. BERGER, one of the Hon. Treasurers, and were approved and adopted by the Congress.

At this stage of the proceedings, Herr GROSS vacated the Chair, which was taken by Mr. H. P. TAVEIRA (Portugal).

Mr. H. P. TAVEIRA said :—

Permit me to take the opportunity of expressing to you in my own name and in that of my colleagues who represent the Master Cotton

Spinners and Manufacturers of Portugal our gratitude for the high distinction with which you have thus favoured our country, the more so, as I feel that I am not able to fill the post as chairman as well as I would desire to do.

In fact, I should hardly dare to take the chair if I did not know beforehand that I could rely on your indulgence to excuse any shortcomings in the fulfilment of my duties.

Friendly relations have existed for a long time between Portugal and the German Empire, and it is a pleasure to see that the economic relations between the two countries are being daily strengthened.

Before proceeding with the business, I wish to transmit to our German colleagues, in the person of the President, Mr. Gross, our hearty thanks and good wishes, and request him to convey to the High Senate of this city, and to the commercial and industrial corporations which have received us with such distinction, the expression of our high esteem.

Mr. H. W. MACALISTER (England) read the following paper on Cotton Exchanges and their Rules :—

In considering this subject, I have assumed that the points to be discussed are those which particularly affect the interests of those great sections of the Cotton Industry which form the foundation upon which the whole trade rests, viz., the Spinners and Manufacturers.

The broad principles which regulate the conduct of the business are embodied in—

The Rules of the Cotton Exchanges in the United States under which the merchant middleman purchases the article direct from the planter, factor, or dealer at the ports or in the interior towns,

And the relationship which these rules bear to, and the manner in which they harmonise with the Rules of the Cotton Exchanges in the markets of the European Continent and in England.

The practical results desired in fulfilment of all contracts are—

(*a*) The delivery of the grade and character of staple, &c., contracted for.

(*b*) A correct out-turn of gross and net weight.

(*c*) The delivery of the cotton in the bale in good condition externally and internally.

For convenience of reference you will find before you, in printed form, excerpts relating to the sale and purchase of cotton, taken from the official rules of several of the principal American Exchanges.

It may be taken for granted that the regulations of these American Exchanges hold the scales of justice with an even hand between buyers and sellers, but the question may with some reason be asked, whether the rules laid down are generally carried out or enforced.

Grade and character of staple (*a*) can always be secured by dealing with firms or individuals who are acquainted with the technique of their business, but the keen competition between buyers in the Southern markets, coupled with the undeveloped conditions under which the trade is carried on in the interior, has induced a laxity of business method and attention to detail which has militated against the efficient operation of the local market rules, and this, it appears to me, is mainly the cause of most of the complaints which European consumers have had to make under Clauses (*b*) and (*c*) above named.

To these initial causes of complaint, the consumer has himself contributed by his hitherto too easy and unquestioning acceptance, without protest, of rules, contract forms, &c., which have been formulated by Corporations or Exchanges without consultation with him.

The buyer in the Southern States becomes the seller in Europe, and as the European spinners have for many years had no organised representative body, it is only to be expected that the interests of the sellers of the raw material should, if anything, generally be more securely safeguarded than those of the consumer, as reflected in some of the existing rules.

Now, however, that we have an International Federation of Cotton Spinners and Manufacturers, which represents the largest buying power of the trade, I consider that it is high time that we made ourselves felt in the council chambers of the Exchanges, and that we insist upon having a voice in the formulation $\frac{\text{and}}{\text{or}}$ alteration of all rules which affect our interests.

During a recent visit to the Southern States by the members of the Lancashire Private Cotton Investigation Commission (principally composed of Spinners and Manufacturers), we made inquiries during our travels on many subjects connected with the trade. We passed through the country at a period of the year when a minimum of stock was left on hand, so that we could only surmise as to what the local conditions would be when an incoming new crop was in full flood.

Among these subjects were the following :—

(i.) The picking of the seed cotton and its care and protection from the weather.

(ii.) The process of ginning and baling.

(iii.) The weight of canvas and bands *necessary* to protect cotton in the bale.

(iv.) The subsequent care of the bale—as bearing upon the causes of country damage "so-called," and of excessive moisture in cotton.

(v.) The compressing of the bale for shipment; and transportation conditions.

These points all have their influence upon the cost of the raw material, and the condition in which it eventually reaches the consumer.

The Commission travelled through the Cotton States of North and South Carolina, Georgia, Alabama, Mississippi, Louisiana, Texas,

Arkansas, and Tennessee, and upon returning to Washington attended a Conference of Spinners and Planters to which its members were invited, held on May 1st and 2nd, which we understand had been organised by the New England Cotton Manufacturers' Association and the Southern Cotton (Planters) Association.

At these meetings the above subjects and many others of economic interest were discussed, and it was generally agreed that there was great room for improvement in the handling of the staple, beginning with the seed cotton as picked in the field, to its formation into a bale after ginning, and its subsequent treatment.

It was admitted that :—

Cotton in the seed was piled in the fields and left exposed to the weather while waiting to be ginned, and if ginned in a damp condition with consequent serious damage to the staple.

The ginning companies are paid on the weight of lint cotton baled (per 100*lbs.), and take no special interest in the quality of the fibre unless they purchase the seed cotton from the farmer and gin it on their own account, as is sometimes the case.*

When the local railway shed is filled, the bales are stored in the open upon the loading stages, in the railway yards, in the streets of the villages or towns, and if taken back to the farm are left lying on the roadside or in the field.

Practically there is little or no attempt made to protect cotton from the weather on the farms, at the railway depôts, in the great market towns, or at the ports ; in fact, the warehouse space available is altogether insufficient to accommodate more than a fraction of the cotton which is held in the country, and I need express no surprise that cotton should become country damaged, "so-called," or that the spinners in Europe should have cause to complain of damp and excessive moisture in cotton so long as the existing conditions prevail.

It is of the greatest importance that means should without delay be adopted to deal with this subject.

Although it was so late in the season, we saw many examples of what I have just described.

The processes of ginning and baling were considered, and their resultant effects upon the interests of the planter and the spinner as represented by—

The quality of the article, in grade, length, and strength of fibre ;

Its saleable value to the grower ;

Its spinning qualities to the manufacturer ;

The form of the bale as at present made, its covering, and the effects of the same upon the cost of transport by rail and sea.

In all these details, the gentlemen connected with the Southern Cotton (Planters) Association evinced the very greatest interest, and they expressed their determination to continue the work already commenced of organising the construction of sheds and warehouses to

protect their produce; and with the object of initiating some improvement upon the present methods of ginning and baling the Conference appointed a committee to discuss these subjects and to report.

This Committee duly met, and their recommendations, which follow, were accepted :—

That all bales be made of standard dimensions ;

That light-weight new burlap be used for bagging, or if conditions justify, that cotton canvas be used ;

That ten ties (*i.e.* bands) be used on each bale, the Egyptian style of buckle preferred ;

That all cotton should be bought and sold net weight ;

That a committee be appointed whose duty it shall be to have cotton baled as above, and to submit same for practical tests to consumers ;

That this committee shall have power to investigate and report upon the various new methods of ginning and baling generally—the committee to report at a future session of this Conference.

I trust that this Conference of Growers and Consumers of Cotton will prove to be the inauguration of the first step of progress towards a gradual and, without doubt in the end, great improvement in the methods of ginning, baling, and the better handling and care of the staple generally.

What are the objects of these recommendations ?

To improve the form of the bale in shape and density, so that it may be more compactly stowed in warehouses, rail wagons, and on board ship ;

To render it less liable to fire by sparks from locomotives and from other causes.

The economy of space occupied, and the lessened liability to fire, will tend to reduce the cost of freight and insurance.

For example :—

The average cost of freight upon a bale of Egyptian cotton weighing 750lbs. from Alexandria to Liverpool is 5s. 6d. This is equivalent to about 18 cents per 100lbs.

Whereas, a bale of American cotton weighing, say, 510lbs., at the average rate of freight from New Orleans to Liverpool, costs 30 cents per 100lbs., equal to $1.53. Say 6s. per bale.

The difference in cost of transport between Alexandria and Liverpool and New Orleans and Liverpool, allowing for any special advantages of the former, can only be attributed to the superior packing of the Egyptian bale (*less space occupied per* 100*lbs.*).

This is a very material point, for if we assume at a moderate computation that seven millions of bales of American cotton annually cross the sea to supply the wants of the mills of Europe, and that a saving could be effected in the cost of ocean freight of 5 cents per

100lbs., say one shilling per bale, this item alone would amount to £350,000, not to mention the possible reduction in cost of inland transportation also.

In addition to this, as we shall presently see, a bale of cotton can be efficiently protected with about 10lbs. per bale less weight of tare and bands than as at present is the custom under our existing terms of contract for import cotton, so that the lessened weight of tare, &c., to be carried would probably be equal to the weight of 140,000 bales of cotton, and the cost of this unnecessary canvas would also be saved.

The evident intention of the recommendation to buy and sell cotton upon net weights is to do away with the temptation to overload the bale with tare (*i.e., to sell canvas and bands at the price of cotton*).

As bearing upon the importance of this subject I should mention that I was credibly informed that the railroad companies are all short of rolling stock (freight cars), and that the car builders in the country were full of orders for months ahead. The trade of the country is, in fact, growing faster than the means of transport.

Now let us ask ourselves the question, How are we, as spinners, to assist in the work of reform ?

When a bale of American cotton leaves the ginner's press (where it is but lightly condensed) it is covered with canvas (weighing from 1¾lbs. to 2lbs. per lineal yard), and secured by six iron bands. The total weight of canvas and bands being approximately 22lbs. to 25lbs. When sent to the compress by the merchant exporter to be reduced in bulk for shipment, the original six bands are shortened, and one, usually two, additional bands are put on to the bale. Patches of canvas are also added, which serve to cover sample holes, but which are purposely intended to bring the total weight of tare upon the bale up to the stipulated quantity allowed under the terms of the presently existing c.i.f. and 6 per cent. contract.

Compare this with the New England (American) Cotton Spinners terms of purchase.

The following are excerpts from the contract forms of two large Spinning Corporations in New England :—

(*a*) ——— Manufacturing Company,
Treasurer's Office, September, 1905.
——— Street,
Boston.

All purchases of cotton after this date by —— will be subject to the following conditions :—

It is understood that only cotton of good spinning character will be accepted.

Tare not to exceed 24lbs. on any one bale.

All bagging and hoops appearing to be excessive in weight will be weighed when the bale is open at the picker, and claim for overweight made on the shipper.

Excessive bagging consists for the most part of patches of old and torn bagging put on in double and triple the quantity necessary to cover sample holes. This can readily be detected, and we ask your co-operation in taking measures to correct this abuse.

Claims for extra tare to be good for 15 months from purchase of cotton.

Average loss in weight on any one mark not to exceed 3lbs. per bale with cotton in sound and dry condition. . . . . .

The weights on bills-of-lading must agree with the invoice weights . . . . . .

———- Manufacturing Company.

———Treasurer.

(*b*) Treasurer's Office,

_____Building,

Boston,

September 1st, 1905.

_____

_____

All purchases of cotton by The_____Mills Company after this date will be subject to the following conditions :—

Bills of lading to be issued in duplicate . . . . . and plainly signed by the authorised agent of the railroad company as such.

Bills of lading not so signed will be returned with the drafts to the shipper.

Bills of lading containing clauses giving the carrier the benefit of insurance, or which limit the time in which notice of loss or damage shall be given, or suits instituted, will not be accepted. Bills of lading containing clauses exempting carriers from liability for loss or damage by fire must have same stricken out by the authorised agent of railroad company . . .

Cotton bought on average grades must be classed out and given separate marks.

. . . . . .

Claim will be made for any cotton under inch staple, and also when staple or grade is less than mentioned in sale note.

In making claims each invoice will be considered by itself. The bands and bagging shall not exceed 22lbs. per bale of 500lbs., and any excess will be charged back to the shipper.

No allowance for loss in weight above 3lbs. per bale.

for the ——— Mills Company,

———Treasurer.

The seller in Boston who usually deals with the spinner takes the risk of, and pays all claims.

This is confirmed by an American correspondent referring to this subject, who writes as follows :—

"In connection with the condition of bales as received by us, I want "to say that the bagging and ties (bands) on all our receipts will not average "over 4½ per cent. of the total weight of cotton. Your custom of allowing "6 per cent. is a very unfortunate one for us, as it has a tendency to "encourage shippers putting on more bagging and ties than there is any "necessity for, and I can also say that your custom is, I believe, an "unfortunate one for you.

"The bales as they come from the gin will not average over 21lbs. or "22lbs. of bagging and ties to the bale. The additional bagging that you "receive of 8lbs. to 10lbs. is all added afterwards, and in my opinion does "not help to improve the covering of the bale at all. Bagging at 2 or 3 cents "per pound is thus sold to you for 10, 12, or 15 cents, and merely because "you encourage it in buying cotton in the way you do. None of our cotton "has side strips on it, and I do not believe they help a particle for foreign

"shipment . . . My feeling is that we should have a universal system "for buying cotton . . . If we could all decide upon a certain percentage "for tare, it would be a great move in the right direction, and later I should "hope that it might be continued in the ginning and other branches.

"The system we adopt at our mill is to weigh the bagging and ties "taken off every bale as fast as opened. When the lot is completed, if there "is an amount exceeding an average of 22lbs. to the bale upon the lot, I "make a claim upon the shipper. This is part of my terms for buying, "and it is quite general among our mills. Some allow 24lbs. to the "bale, and make a claim on all bales exceeding that weight. The "actual covering required for a bale of cotton at the gin is 6 yards "of bagging weighing 2lbs. per yard, and six ties at 1½lbs. each; total, "21lbs. In compressing, about 2ft. is cut off each band. . . . . "Calculating eight bands for a compressed bale, the weight of bands "would be a little under 10lbs., therefore without side strips the actual "amount of bagging and ties as the cotton comes to us is something "under 22lbs.

"I enclose statement of tare on cotton used by us since September 1st, 1905:—

"On	900	bales	Texas, tare average	21·26lbs. per bale.
,,	6,350	,,	Uplands, ,,	22·28lbs. ,,
,,	1,900	,,	Arkansas & Miss. ,,	20·30lbs. ,,
	9,150	,,	Tare average	21·767lbs. ,,

There are other minds at work studying the problems of better methods in the cotton business. The Southern planter has wakened up, and is directing his attention to the need of changes which he sees must come, and in the letter from which I have just read you will observe how our bad system of purchasing cotton reflects upon our spinning friends in North America. One of the first things to take in hand, therefore, is the revision of our c.i.f. contract, so as to make it tend in the direction of necessary reforms and avoid being a bar towards progress and improvement in the matter of covering and baling cotton as it is at present.

I should here point out that if the suggestions made by the Washington Committee with reference to improvements in baling cotton can be carried out, 16lbs. of canvas and bands would be sufficient to cover a bale of 500lbs. weight, and the establishment of a standard of size and density of bale would, I am strongly of opinion, effect a further material reduction in the cost of Tare and Transport charges.

Now, with regard to the manner in which the Rules of American Exchanges harmonise with those on our side.

If you will study the excerpts from Rules of American Cotton Exchanges, (p. 147 *et seq.*), I think you will find that adequate provision is made to protect the buyer in American markets both with regard to country damage, excessive weight of canvas, and bands, false packing, excessive moisture or damp; and this being so, it is only right that his customer on this side should stipulate in his contracts for the same consideration and advantages.

The functions which the Merchant Importer performs as his part in the economic conduct of the cotton business are fully recognised and appreciated by his customer, the spinner and manufacturer; and as the interests of these two contracting parties are mutually dependent upon each other, the International Federation of Master Cotton Spinners' and Manufacturers' Associations, as representing the largest

buying power in the cotton world, look to the merchants as a body for their active co-operation and assistance in developing these reforms too long delayed, and so urgently necessary to the welfare of the cotton trade generally.

The days of passing resolutions with the expectation that their moral effect will produce reforms have gone past. Active propaganda and energetic work nowadays are the best means as a rule to obtain practical results, and with this end in view Mr. De Hemptinne has a proposition to make which he will shortly place before you bearing upon the subject of this paper.

Supplementing his paper, Mr. Macalister said he would explain one or two of the points he had tried to make. First, with regard to the c.i.f. and 6 per cent. contract. The reason he spoke so strongly upon that subject was that he considered that their present form of contract was one of the main causes which barred the progress of development of better methods of baling cotton. Perhaps some of the members of the Congress were not aware that the manufacture in America of gins, iron bands, canvas, and baling presses was largely controlled by trusts. Changes in methods were detrimental to the interests of trusts. We as traders would therefore require to drive the plough of progress through these opposing interests.

He considered that the present badly-formed and pressed bale, with its excessive weight of covering, cost the trade annually something like one million sterling more than was necessary; and that if the suggestions made at the Washington Conference of Spinners and Planters could be carried out, a still greater saving could be effected. It was only reasonable to suppose that if American cotton was better packed into a bale of standard dimensions that a reduction of transportation charges could be effected.

The cost of freight upon Egyptian cotton—Alexandria to Liverpool (3,080 miles)—was equal to 18 cents (American currency) per 100lbs. From New Orleans to Liverpool (about 4,600 miles) it averaged 30 cents, and from Savannah (about 3,700 miles) 28 to 30 cents per 100lbs.; and assuming that the rate of sea freight, by reason of better packing, could be reduced 5 cents per 100lbs., it would save :—

	Per annum.
Upon the cotton exported (7,000,000bales)	£350,000
And a similar reduction in inland freight upon, say, 10,000,000 bales, would amount to..	500,000
Further, the New England spinner buys his cotton with about 10lbs. per bale less tare than the European buyer, and this 10lbs. per bale, upon the cotton exported from America, about 7,000,000 bales, is equal to the weight of 140,000 bales of cotton, which at the rate of freight, already mentioned, amounts to the unnecessary cost in inland and marine freight alone, at 60 cents per 100lbs., of..	84,000
And if to this you add the value of this unnecessary bagging at the rate of only 1 cent per pound (new bagging is worth 5 or 6 cents), it amounts to an item of	140,000
	£1,074,000

Right-hand Bale, Weight 754 lbs. gross. Left-hand Bale, Weight 747 lbs. gross.
Measurements: 4ft. 3in. high, by 2ft. 7½in. flat, by 22in. round.
4ft. 3in. high, by 2ft. 8in. flat, by 21in. round.
Contents Average 20 cub. ft.; Weight per cub. ft., 37½ lbs.

Showing how closely Egyptian Bales pack together.

American: 511 lbs. gross; Measures 5ft. 0in., by 24in. flat, by 28½in. round; Measurement, 23·7 cub. ft.; Weight per cub. ft., 21·6 lbs.
Egyptian: 747 lbs. gross; Measures 4ft. 3in., by 2ft. 8in. flat, by 21in. round; Measurement, 20 cub. ft.; Weight per cub. ft., 37 lbs.

Showing the round sides of American (Width 28½in.) and Egyptian Bales (Width 21in.)

Thus we get a total of items amounting to rather over one million sterling, and other economies would follow as the result of improvements in baling, among these being two of great importance to Railway Companies, viz.: a great saving in expenditure for freight cars, and the very practical advantage of being able to handle heavier train loads with shorter trains.

Concluding, Mr. Macalister thanked the President of the Bremen Exchange for the goodwill he had shown. He was glad to notice the strong position the Continental spinners occupied on the Bremen Exchange and how pleasantly the buyer and seller on that Exchange got on together.

Mr. C. W. MACARA explained that in the early part of the year, the private commission to which Mr. MACALISTER had referred, was appointed by some of the leading Lancashire Cotton-spinning firms and had visited the Southern States of America for the purpose of inquiring into the Baling, Handling, Marketing, and Shipping of American Cotton. Mr. George Moores, secretary to the Commission, had prepared a report which it had been decided should be read to the Congress.

Mr. MOORES (England) then gave the following report :—

A Cotton Growing Investigation Commission.

Cotton Growing in the United States of America.

The need for a greater production of raw cotton is recognised by everyone connected with spinning and manufacturing, whether in Europe, America, or elsewhere. The demand for cotton goods has been steadily rising for a considerable period, and has become quite abnormal during the last two years, resulting in a large and rapid increase of spindles and looms to meet that demand. This increase of the means of production has created an anxiety in many minds lest the supply of the raw material should not keep pace with the demand. The anxiety is not altogether of recent growth, for the developments that have already taken place show that the leaders of the cotton industry have been fully alive to the necessity of ensuring an ample and continuous supply of the raw material. We have seen the establishment of Cotton Growing Associations by England, Germany, France, Italy, and Portugal, the representatives of which are present, and they will give us, before the week is over, an account of the work they are doing. Whilst we are all prepared to hear that success attends their efforts, we are not unmindful of the fact that it took the United States ten years of strenuous labour before their annual production reached 100,000 bales, and forty years before they were supplying 1,000,000 bales a year. In 1870 their total yield equalled 2,750,000 bales of 500lbs. each, and this had increased by 10,000,000 such bales thirty years later, or an average increase of 300,000 bales a year. It has been estimated that the increase in demand for raw cotton now amounts to 500,000 bales a year, and this estimate is probably well within the mark. Assuming the exceptional yield of half a bale to an acre, this increased demand means that 1,000,000 acres of land ought to be added each year to the world's cotton field! These figures are tremendous. With such an enormous increase there is room for every cotton-growing association that can be brought into existence, and need for all the energy and skill they can put into their work.

In face of what history shows to be the facts relating to the establishment of cotton growing in the United States, it was felt that the risk was too great to wait for the new sources of supply being developed. To Mr. J. R. MacColl, President of the National Cotton Manufacturers'

Association of the United States, the credit is due for drawing public attention, in his presidential address last year, to the possibility of further developing cotton growing in the United States of America. Mr. Macara, of England, who ever displays an anxiety for the welfare of the cotton trade, became interested in Mr. MacColl's remarks, and, learning that I was making a business visit to the United States, he arranged that I should convey a message to Mr. MacColl, and if he was agreeable, discuss the subject of cotton growing with him. That interview took place last December, and the result of it and of other interviews I had with cotton growers, &c., was subsequently reported to Mr. Macara. The next step was the calling of a meeting of several prominent English spinners and manufacturers, who eventually formed themselves into a body for the promotion of a Commission of Inquiry to visit the United States. A commission of six Manchester men was eventually formed, under the title of " The Lancashire Private Cotton Investigation Commission." Their terms of reference were " To make inquiry on the spot, and to ascertain as nearly as possible the cost of growing cotton and the economic conditions under which it is produced in the cotton belt of the United States of America ; also to investigate the methods of ginning, baling, handling, marketing, and transport of the product."

The general feeling of the promoters of this Commission towards the efforts being made by the several cotton-growing associations of Europe may, I believe, be well described in the words with which I concluded my report to Mr. Macara. I said :—

> " In conclusion, I would like to express my opinion, previously held and strongly borne out by my experience amongst planters, spinners, &c., in the States, that should the efforts of the British Cotton Growing Association to produce a plentiful supply of cotton within the Empire, have to be given up or in any way slackened for any reason whatever, it would be a national calamity, and the same remark applies to other European countries in the efforts they also are making to produce cotton."

It has all along been fully recognised that nothing must be done to clash with any effort that is being made to increase the supplies of raw cotton, and should the result of the Commission's visit to the United States lead to land being taken up there for cotton-growing purposes, such efforts must be looked upon as an auxiliary and not in the slightest degree antagonistic to the efforts being made elsewhere to produce the fibre. There is an old saying, cautioning us not to put " all our eggs in one basket," and this applies to cotton equally with other things. To produce a healthy, sound, and safe position for the cotton industry, it is absolutely essential that we should open up new sources of supply, as well as maintain, and, if possible, increase the supplies from the present sources. The position that would be created in the world's textile manufacturing centres, should there by any mischance be a failure in the American cotton crop before we have other sources of supply available, is too serious to contemplate, And yet, who shall say such a catastrophe is impossible ? Every new source of supply opened—the bigger it is the better—is, as it were, an additional policy of insurance taken out against the possibilities of a cotton famine.

There are two ways of increasing the supply of raw cotton. We may either add to the acreage, or increase the yield per acre.

Dealing first with increased yield, I believe we shall see good results from the establishment of such institutions as the Science Guild recently formed in England, and from the International Agricultural Institute originated by the King of Italy. The object of the Science Guild is to bring science into closer touch with all industrial and commercial activities, whilst the International Agricultural Institute is more restricted, and concerns itself particularly with introducing scientific methods into agricultural operations. In both cases the raising of materials necessary for the feeding of the peoples of the world will perhaps for a time receive their principal attention, but the production of materials necessary for the clothing of mankind, in which cotton so largely enters, will not be lost sight of.

In the journey made by the Cotton Commission to the United States, ample evidence was obtained tending to show how valuable the efforts of scientists can be made in relation to cotton growing. The United States Department of Agriculture is doing most excellent work in the direction of increasing the present yield per acre. Its work is divided into sections, and when any difficulty is experienced, it is reported to the proper authority dealing with the specific case. For instance, one section will make a speciality of plant life ; another, of pests ; another, of fertilisers ; another of dry-land farming, and so on. The section into whose charge any particular problem has been placed, deputes one of its men to make a detailed study of the whole of the conditions surrounding that problem. As illustrative of what is being done for cotton culture, experiments are continually in progress with a view to improving the plant and its production by seed selection, hybridisation, fertilising, draining, improved methods of cultivating, &c., the object being not only to increase the quantity, but to improve the quality of the fibre. Much good has already been done in this way. By crossing and hybridisation plants have been produced which yield a better grade and a longer and stronger staple ; others have been made hardier, enabling them to resist the attacks of pests which have before been fatal ; other plants have been raised whose fruit ripens simultaneously, and is available for harvesting in one picking, instead of the usual three pickings. Others again have been evolved giving 40 per cent. of lint to seed cotton, as against the usual 30 per cent. Professors are also sent to travel throughout the country to impart scientific knowledge to the farmers upon the use of fertilisers, methods of cultivation, and how best to deal with drainage where the rain-fall is heavy, and with dry lands where there is a lack of natural moisture. In short, we cannot speak too highly of this Agricultural Department whose work may be summed up as that of making two blades of grass grow where only one grew before.

I can only refer in broad terms to the conditions under which we found cotton produced in the United States, for our evidence is very voluminous, and it will be some little time before we are able to present our report.

Speaking generally, the cotton-producing States may be divided into three parts ; the Eastern States, which will include North and South Carolina, Georgia, and Alabama ; the Central States, consisting of Mississippi, Arkansas, and Louisiana ; and the Western States of Oklahoma, Indian Territory, and Texas. In this vast area of 750,000

square miles, there are numerous varieties of climate, soils, labour, and pests. The Eastern States have mostly a light, sandy soil. The cotton grown is of the Uplands variety, and the yield is comparatively uniform year by year, for their porous soil and high lands prevent disaster by flood, whilst the rain-fall is sufficiently heavy to protect them from drought. The land is greatly improved by the addition of artificial fertilisers. Labour is practically all black. In the Central States the staple is longer and finer than in the Eastern. The land is alluvial, heavy, and rich, and a great portion lies below the level of the rivers, protected from inundation by high banks. No fertilisers are here used, nor do they seem to be requisite at present. Torrential rains occasionally cause great local damage. The yield one year will be very heavy, and the next very light, owing to the vagaries of the weather. Negro labour predominates, and is not too plentiful. In the Western States, particularly in Texas, there appear to be many varieties of climate, soils, and crops. There are the black waxy lands of the prairies ; the alluvial lands of the river bottoms, and the sandy loams of South Texas. The Boll Weevil pest is much complained of in this section of the country, but I am pleased to say the government entomologists are sanguine that they have discovered means of curtailing its depredations. White labour predominates, and is composed of immigrants from Italy, Germany, Norway, Sweden, Denmark, and Mexico.

There are millions of acres in the American cotton belt, and possibly some of the richest cotton lands amongst them, at present lying idle for want of labour. The South has not yet greatly benefited by immigration, but the railway companies are using every effort to direct the human stream over these vast areas.

The limit of cotton supply is very far off being reached. Texas alone is said to be capable of producing 30,000,000 bales a year, and in Louisiana only one acre in every seventeen is yet growing cotton. There is, however, every appearance of a great change in the South. The price of land is rising rapidly, and the efforts of the railways to bring the people to the land, together with the splendid work of the Agricultural Department to teach those upon the land how to get more out of it, is bound to have an appreciable effect in the country. It does not follow, however, that these newly-opened lands will of necessity grow cotton, or if they grow it, that they will sell it at such a low price as is necessary to produce clothing for the poorer nations of the earth. The railways are laying themselves out to carry agricultural products from these lands to the great markets in the North, and the farmers in many cases are finding other crops more profitable than cotton. There are, also, the Cotton Growers' organisations to be reckoned with. These have been holding out for a minimum of 11 cents a pound, and they will not be slow to force prices still higher if circumstances become favourable.

For these reasons, and for the further considerations that many planters are becoming interested in spinning, may it not be good policy for spinners to interest themselves more than they have done in planting ?

Cotton can undoubtedly be profitably grown in the Southern States of America at far less than 10 cents a pound—many planters

told us there was a profit at 5 cents. Is it not time we took steps to find out for ourselves the cost of this material for which we pay millions sterling per annum ?

Besides the knowledge we should obtain of the cost of growing raw cotton, we must certainly do something to perfect the ginning, baling, and transport of the product. After cotton is grown, enormous waste occurs between the time it is picked and the time it is spun, and you spinners have to pay for it all.

A plantation in which it was known that spinners were interested, and cultivated on scientific principles, of a sufficient size to give a production large enough to warrant the establishment of a model ginning and baling plant, would exercise a great and wide-spread educational influence.

Herr A. W. CRAMER, Vice-President of the Bremen Cotton Exchange, followed with a paper on :—

The Rules of the Cotton Exchanges on the Continent.

For the Continental market the rules only of the Havre and Bremen Cotton Exchanges enter within the scope of this paper. Wherever else cotton is dealt in on the Continent, no fixed rules exist, or, at all events, the trade is not of much importance. As regards Havre a distinction must be made between " futures " and spot cotton. The former are used principally for speculation, the transactions being usually settled by payment of the differences caused by the upward or downward movement of prices. The " future " trade is consequently only of indirect interest to the consumers, their interests being centred in the trade with actual cotton. In Havre business between merchant and consumer is usually carried on as follows. Certain spot lots are bought according to sample, but also sometimes according to the standard or description. These samples serve as the basis for the purchase of the whole lot, consisting of so many best, medium, and inferior bales. Another custom much in vogue is to sell cotton for future delivery or for arrival, on samples taken from the bales in America and sent to the importer in advance of the cotton. The purchaser usually pays the importer a commission, generally 1 per cent., and in addition he has to bear the cost for delivery on board, &c. There are no printed contract forms for the trade between the spinner and importer. Disputes between seller and purchaser are settled by arbitration. If it is a question of difference of quality, each party nominates a broker to look after his interests, both brokers bargaining over the question. If they cannot agree, they nominate an umpire.

If the spinner desires to cover his requirements at a distant date, two methods are open to him at the Havre market. Either he buys " futures," reselling them at a date when he requires actual cotton, or he buys immediately actual cotton for delivery on call at a price to be fixed finally when the cotton is called, while at the outset it has only been agreed upon to be so much on or off a certain future quotation. The spinner will use the first of these two methods when he wishes to secure himself against fluctuations, which by-the-way is not at all always thereby attainable, actual cotton and futures not

always being subject to the same fluctuations. In purchases for delivery on call, the spinner is assured that he will get the actual quality he desires to use, but the uncertainty of the eventual price will always be a great disadvantage.

As already said, the French spinner buying in Havre, generally selects for his consumption lots of which he has already ascertained the quality, consequently in Havre the principal business is in spot transactions. The market is in this respect and also as regards the existence of a " future " system identical with the Liverpool market. The conditions in Bremen, however, are entirely different, and as Bremen forms the centre of the largest portion of the cotton trade on the Continent, it will interest you probably to know wherein lies the difference between the Bremen and the Liverpool-Havre trade.

The original form of the Bremen trade with the consumers in Germany was in every respect similar to that of Liverpool and Havre. The cotton which came to Bremen was offered and sold on samples taken from the actual bales, and also on the basis of standards. It was always a question of actual spot cotton. In view of the increasing development of the Continental industry, it was felt that this *modus operandi* did not suffice for the requirements of the industry. The number of merchants in Bremen who were willing to import cotton at their own risk was a very limited one. The consequence was that a want of spot cotton made itself felt, the spinners not having sufficient choice at their disposal. The spinner who had sold his yarn for late deliveries was the one who suffered most. How was he to find cover for such orders with late deliveries ? A provisional cover by means of " futures " could not be of much use to him, as he could not rely upon being able to change his " future " contract into actual cotton. Thus it came about that the industry also strongly desired the establishment of a large cotton market in Bremen, and in 1886 the Bremen Cotton Exchange was founded. You have before you a report upon the development and activity of the Bremen Cotton Exchange which that institution has prepared for distribution amongst the delegates of the Congress.

The close union between cotton merchant and spinner which was created by the Cotton Exchange was a means of placing the cotton trade on quite a different basis. The spot business has since then occupied a more and more secondary place, and is now quite unimportant. As a rule the Continental spinner, so far as he is within the radius of the Bremen Cotton Exchange, now buys his cotton exclusively for future delivery. Consequently his supplier is not forced to deliver him a certain lot of cotton, but he may get the quality necessary for the fulfilment of the contract wherever he likes, thus having the entire world at his disposal. At a first glance it would seem rather dangerous for the spinner to leave the selection of the quality to his supplier, but here the rules and arrangements of the Bremen Cotton Exchange protect him fully. The purchase contracts are usually for a certain quality named according to the grades, *e.g.*, fully middling or good middling, also according to the country of origin, as Texas, Gulf, American, &c. The length of staple is also frequently stated, and other points which the spinner considers essential for his spinning are likewise noted in the contract.

The purchaser has the following safeguard for the fulfilment of the quality agreed upon: He may have the cotton submitted to arbitration by the Bremen Cotton Exchange. This is not the equivalent of an arbitration in other markets, as the buyer has no need to engage a representative to look after his interests, an allowance for inferiority (if any) being fixed by the sworn classers of the Exchange. The arrangements of the Exchange are made in such a way that the result must be an impartial one and moreover the spinners have the opportunity of having their working checked by their own delegates. For instance, the merchants and spinners check every year the standards which are used by the classers of the Exchange as the bases for arbitrations. This assures to the spinner that he gets due allowance for any inferior quality, but this alone would not suffice for him, as inferior quality may not serve his purpose. In view of this, the rules state that the seller must pay a fine to the purchaser, when the difference of quality is too great. If the contract stipulates, as is usually the case, a fixed grade, such as middling, fully middling, or good middling, the seller has to pay a fine of one " pfennig " per half-kilo (say a pound) on each bale which falls more than half a grade from the guaranteed quality. If the difference is as much as a whole grade on the average of the whole lot, the purchaser has the choice of invoicing back the inferior cotton at the market value of the stipulated cotton and to charge one pfennig per half-kilo as fine; or he may accept the cotton with the allowance fixed by the classers with an additional two pfennigs (¼d.) fine. The fine may under certain circumstances even be as high as three pfennigs (⅜d.) for each half-kilo. Of course, the trade is not in a position to stand these heavy fines often or even occasionally. Consequently, every merchant will take good care not to have any fine to pay, and the effect of the clause is that the spinner receives as a rule his proper quality. For minor differences, such as those resulting from different crops, or from a different judgment of the quality or other similar causes, the spinner receives a corresponding allowance, whilst great deviations are prevented by the "fine clause" just explained. Under these circumstances the spinner is enabled to leave the selection of his quality to his supplier. In any case, the advantage of this system, which is that the spinner contracts in advance according to grade and description, and leaves the selection of the quality to his supplier, has been proved to work exceedingly well. The proof is that the trade of Bremen, since this system has been adopted, has increased constantly; and the following incident, which may surprise some of those spinners who buy their requirements in Liverpool or Havre, proves furthermore the advantages of this system. On the strength of reliable investigations, I am in a position to prove that amongst the purchase contracts made on the Bremen Cotton Exchange there is hardly 10 per cent. of spot transactions, whilst more than 90 per cent. are transactions for more or less remote deliveries. This is a very significant fact. In Liverpool and Havre the conditions are entirely different. The Liverpool statistics suggest that the English spinner covers at least 90 per cent. of his requirements in spot cotton. Which system is the more advantageous for the spinner, that which the English and French spinners adopt, or that of the other Continental spinners?

One is bound to admit that it is most desirable for every spinner to have his books full of orders, and at normal times most of the spinners are in the position that their production is sold months ahead. Where this is not the case, I have no doubt that spinners desire such a state of affairs in their own interest. If it is the rule that a spinner secures an order for yarn to-day which as a matter of fact takes months to complete, then I consider it would be exceedingly advantageous for the spinner to buy the necessary cotton in such a manner that he would receive it at the mill exactly when he intended to start spinning against his yarn order. It will also be well for the spinner to secure from the very first the quality which he absolutely requires. A provisional cover through " Futures " is, in my opinion, not so advantageous as a definite cover, first, because with the future system there are two transactions which cause expense, and which might be avoided; and secondly, the spinner can never ascertain so clearly with the future system the exact price that the cotton will cost him as with a contract in which there is only one figure. It seems further advantageous for the spinner to contract for delivery at exactly the date that he wants his cotton. In this manner he saves loss of interest and expense for storage; furthermore, the capital for a mill which buys its requirements in small lots, with well-arranged dates of delivery, does not require to be so large as that of a mill buying from time to time large quantities of spot cotton.

As the advantages resulting from a contract with a definite delivery are apparent, the next question will be: What has the spinner to pay for these advantages? I must state that, according to the usages of the Bremen trade, the purchase price is always for " franco-waggon." The spinner does not pay any commission to his supplier, not does he pay him any expenses. In what proportion does the franco-waggon price stand to the value of the cotton in other world markets? I maintain that the margin between the Bremen franco-waggon price and that of the other markets is a very small one indeed, and that often there is no difference at all. This is a natural consequence of competition in the Bremen market, where not only Bremen houses do business, but also to a very considerable extent, American and English firms. It is a known fact that the cotton trade in its present state does not allow of regular profits, be they either in the shape of commission or margins. The trade must endeavour to assist its customer, the spinning industry, by constantly finding new means for the purpose of facilitating the purchase of the raw material. How can this be better achieved than by the spinning industry affording their suppliers every opportunity of availing themselves of all the facilities provided throughout the world. The spinning industry ought not in my opinion to rely on one market alone, however large it may be. Is it not entirely dependent on the accidental state of speculation, whether, for instance, Liverpool will attract a large or a small stock of cotton? It is no doubt a great advantage to the Continental spinners that they are able to buy actual cotton well ahead, and before any scarcity is felt, and this was especially the case during the season of 1903-04, as, indeed, it is in all the seasons of scarcity of American cotton. The spinner who sells his yarns months ahead, and buys the necessary raw material for later delivery (when he wants

to start spinning those orders) is always in a position to look with calmness upon the doings of the market, an advantage not to be under-rated.

I have tried to put before you the methods by which the Bremen cotton trade is being carried on at present, and what are the advantages of these methods to the spinning industry. I wish to lay special stress on the fact that I do not attempt to pass judgment as regards the question which of the three markets, Liverpool, Havre, or Bremen, best meets the requirements of spinners. My paper will have fulfilled its purpose if it has caused you to consider the advantages offered in the various markets and to compare one with the other. Rules of Exchanges should not be firm, fixed, and unchangeable, but should be capable of being moulded according to the changes which are constantly taking place in the world's commerce. The Bremen cotton trade has for more than 25 years considered it advisable to keep in constant touch with the spinning industry, and to work hand in hand with it, and this seems to be the *modus operandi* which results in the best mutual advantage. This shows the direction in which further developments of commerce and industry lie in the future.

With the fervent desire that success may crown our efforts in this direction I now conclude.

Herr KUFFLER (Austria): I think that we have entered, with the papers that have been so ably delivered by the three gentlemen we have just heard, upon the most important and the practical part of the work of our organisation. The Congress has heard that when we first met at Zurich we had, many of us, far reaching ideas about how we should combine and tackle the whole cotton question at once, and pass resolutions that cotton should not go above a modest price. Since then, we have grown three years older. We now see that we can do many things, but we cannot do everything that we thought we could at the beginning. Since then, times have changed altogether We met at Zurich at a time when the cotton trade was very near to disaster; we now meet, I am glad to say, in a time of general prosperity, and some of the aims and schemes that were all right in a period of depression are perhaps a little out of place to-day. But there are many smaller matters that can wisely be tackled in times like these, and the combination of these small matters makes up very big and important matters. Our organisation is so far advanced that it can tackle practical matters and what Mr. Macalister has said has shown the way upon which we ought to go. After the general interest shown in our organisation, we may take it for granted that we are permanently established and can proceed to real work. In all the matters mentioned by Mr. Macalister, especially as regarded the baling and shipping of cotton and damp in cotton, the organisation

can do something. It is necessary that these things should be dealt with not only once a year, but continually, and that the Cotton Exchanges of all countries should be approached on these subjects. And it is not only the Cotton Exhanges of Europe, but what is perhaps more important, we should always be in communication with the Cotton Exchanges of America. If we put matters before the cotton exchanges continually, we can get at something. At the Bremen Cotton Exchange we always try to bring spinners and cotton merchants into one line. As Mr. Plate has said, on the Bremen Exchange there are twice as many spinners as cotton merchants. There the spinners might outvote the merchants, but such things as a rule do not happen, and I am very glad to say that nearly all or at anyrate a great many of the votes taken on the rules are taken unanimously. But if anything were brought forward at the Bremen Cotton Exchange about rules, about shipping, or about the handling of cotton, the Bremen merchants said, and they were right in saying, that they were quite ready to meet the spinners, but they could not do anything if Liverpool went against them or if the American Exchanges would not agree. In this respect international co-operation can bring influence to bear. Though these items are comparatively small, they are of great importance for the spinning trade. It is not so important that the rules should be like this or like that. What is wanted is a fast rule. We know exactly what our rights and our duty are. We want to know when we buy cotton from America, that we shall get the right class and description. Mr. Macalister has told us something of the contracts that American spinners make with the merchants, but he has not told us whether all those contracts are really followed, and what in the case of a short crop the spinner does if the merchant does not deliver to his contract. In America it is understood there are sometimes misunderstandings. If European spinners can combine their very modest wishes with those very far-reaching wishes of the American spinners, something very good would come from it.

Mr. J. R. MacColl (America), President New England Cotton Manufacturers' Association, said: I am very glad indeed to have this opportunity of meeting so representative a gathering of cotton manufacturers from many countries. I wish to testify to the valuable work done by the Private Investigation Commission that visited America recently. It was a matter of surprise to many of us in America that such a Commission did not go there years ago, because

it must be productive of great good to come into closer touch with the growers of cotton and the merchants or middlemen who handle cotton and transfer it from the grower to the spinner. The Commission worked hard. They went through the Southern States, and met hundreds of planters and middlemen, and also manufacturers of the Northern and Southern States. They called attention to the faults connected with the handling and baling of cotton, and it was a source of gratification to find that there was a general disposition on the part of the Southern cotton-growing associations and the planters, ginners, and compress owners, to improve the present methods and to handle cotton in a more satisfactory way. Mr. Macalister has referred to the c.i.f. contracts. That is a matter in which we in America are not interested, as we do not buy cotton in that way. We pay for gross weight of cotton, with a restriction of 22lbs. per bale of tare. Europe prefers the 6 per cent. c.i.f. contract, or it has done so in the past. It was found on investigation that the usual method was simply to add the 6 per cent. to the cost of the cotton. It is for Europe to consider whether it gains or loses by this system, and it is not a matter that the American manufacturer should give advice upon. The Southern Cotton Association and the Planters' Educational Union had representatives at the Washington Conference. The meeting was of great benefit, because both sides of the industry, growers and spinners, became better acquainted with the points of view of each other, and it is my opinion that spinners should endeavour to arrange another conference at no distant date with the cotton growers of the South. The growers were ready and willing to meet the views of the spinners' organisations, and they were keenly alive to the necessity and advisability of improving the handling of the cotton. I do not believe you can get these cotton growers to come to Europe in large numbers, and it will, therefore, be necessary for Europeans again to go to America. On behalf of the Manufacturing Associations of America, I assure you of a most cordial welcome, if you decide, either as a body or by representatives, to join another international conference of growers and manufacturers. The work of the last Convention was not completed by any means. It was rather hurried, and although something was accomplished, there is still a great deal to be done of a practical character. I am sure the next conference will result in more definite results than were achieved by the first.

Baron CANTONI (Italy) said: I am sure it is a great satisfaction to us all to welcome the American delegate. The Congress has acquired much greater importance by his presence. We hope that on all future occasions we shall meet friends from the States. The reports of Mr. Macalister and Mr. Moores, and the few words from Mr. MacColl, have been of the greatest interest. I hope the influence of the American spinners will improve the conditions under which Europe procures its raw material. We have been invited to discuss matters of interest arising from the papers, and I would like to call attention to the effect of what the Liverpool rules called tenderable cotton. Mr. Cramer, in his report, showed the advantages that some spinners had of buying beforehand exactly the quality of cotton that they wanted; that a penalty had to be paid when cotton of a quality not contracted for was delivered, and that in the event of certain differences in quality being found the spinner had the right to return the cotton. To-day we are in an international Congress, and we must take into consideration the requirements of such nationalities as have not the benefit of a local market, but have to depend entirely upon direct importation and the c.i.f. contract. Under these circumstances in Italy we have to accept and pay for the cotton before we receive it. We have to accept any quality the merchant sends and can only get any difference by stating in our contracts that differences will be settled by Liverpool arbitration. All spinners and manufacturers knew that that was a very unsatisfactory way of getting an indemnity, not to mention the loss of having to spin cotton not of the quality that was required. Under Liverpool rules cotton which was nearly like linters was still considered tenderable. We have known of cotton that cost 4½d. upon which was allowed a rebate of 3d., and yet Italian spinners would have been expected to spin it if possible. The Congress might do something to secure an alteration of the rules of Cotton Exchanges with the object of establishing smaller limits upon cotton that was called tenderable and that had to be kept by the spinner.

Mr. J. B. TATTERSALL (England) said: I was very much interested in the remarks of Mr. Plate. What struck me as the keynote of the whole matter was that in Bremen the buyer and the seller discussed together what was fair and reasonable in the buying and the selling of cotton. In the Liverpool market it seems to me the greatest difficulty arises from the fact that the merchant and the broker isolate themselves absolutely from the ideas and views of the purchasers. I have always felt that the purchaser of cotton should at least

have some voice in making the rules by which he is governed. I have protested that I could never be satisfied with rules made and regulated by the seller when I as a buyer have no voice in making them. One of the great injustices (I am speaking more particularly of the vast bulk of American cotton) is the method of dealing with excessive weight in tares owing to which the spinner does not, in a great measure, obtain the weight that was invoiced to him. Many spinners in Lancashire are now forced to engage men permanently for no other purpose than to see that tares and undesirable cotton does not pass through into the mill. It is very unfair that this continual effort should be required to get what the purchaser had a right to demand in the first instance. As has been expressed by the President of the Bremen Cotton Exchange no great success in making fair and reasonable rules can be obtained until we can impress the Liverpool Cotton Association with the fact that the buyer must have a voice in making the rules. There is another grievance which has lately come to the fore. This grievance Liverpool itself has made an effort to remedy, but the interest of certain sections of the market is such that even efforts of their own association have not been successful. We all know that at times the prices of cotton have ranged from 5d. to 9d. per pound, and that a margin of 5 per cent. up or down is allowed respecting the amount of cotton that might be tendered under a good contract. That practice left the door open for the merchant to do an injustice to the purchaser of cotton. Suppose a man has purchased 500 bales of cotton, and the average weight is 500lbs. a bale. According to Liverpool rules, if cotton falls in price the merchant can deliver bales 25lbs. lighter than he contracted to deliver, and yet be within proper limits. If cotton rises the merchant can add 5 per cent., or 25lbs. more, which often means all the difference at a large spinning mill dealing with coarse counts, between a dividend and a loss. The matter is too serious to allow spinners to sit down quietly under rules that are unfair on the face of them. The remedy is to be found in adopting the method of the Bremen Cotton Exchange. No satisfactory plan of buying or selling can exist until the rules and regulations of the Cotton Exchanges are made by a combination of buyers and sellers.

KOMMERZIENRAT E. STARK (Germany): From the remarks made you will have seen that there is a general desire to obtain uniformity in the rules of the various Cotton Exchanges. We have seen that the greatest diversity still exists. I am, however, of the opinion that it is

not a very great task to overcome these difficulties, and to obtain uniformity in the rules of Cotton Exchanges. I need not dwell upon the importance of establishing uniform rules for the cotton trade. We in Bremen have often had occasion to communicate with the other Exchanges with the view of coming to uniform rules, but we have only succeeded in a few points ; we have been always short of the necessary weight behind us. I am therefore of opinion that if our large organisation makes the necessary representations to the various Cotton Exchanges we shall have taken a great step in the right direction, and I would like to suggest to you that we decide to-day to ask the most important Exchanges of the world to nominate delegates who would confer with the representatives of the International Committee, in the endeavour to arrive at uniformity as regards the most important points in the rules of Cotton Exchanges.

Mr. E. STANSFIELD (England) suggested that steps should be taken during the coming year to carry out the recommendations that had been made. Consumers of cotton would be quite able to do this in conjunction with cotton merchants, who undoubtedly would listen to them the moment they found that consumers were determined to have the rules altered or to make conditions of their own as had been done in Bremen. He quite agreed with Herr Kuffler that that one thing alone was worth all the efforts of the Congress. As to the question of contracts, he was in a position something like Mr. MacColl. He made contracts for cotton on his own terms to some extent. He did not follow absolutely the rules and by-laws of Liverpool. One rule was that there should be no claim for less than an excess of 1 per cent. He would not buy cotton from any merchant who imposed that condition. Again, if there was an excess in the damp in cotton he claimed an allowance and if he did not get it he bought no more cotton from that source. He got his own way in all these matters, but it was impossible for everybody to be equally fortunate unless the rules were altered. If the Congress appointed a small committee to work out one or two of these points he was sure they would be successful. If they did nothing but discuss in an academic way they would remain where they were.

Mr. S. M. JOHNSON (Cawnpore) thanked the Congress for inviting a representative from India, and expressed regret that he was the only one present from that country. In the papers he noticed that a great deal had been said about damp in cotton and tare in bales, and

about the weight of cotton. He might tell them that in India they paid only net weight. To them it was a matter of complete indifference what the tare on a bale was. The tare, whatever it was, was deducted and they paid for the net weight. It had come as a matter of surprise to him that the weight of the tare on American bales was as much as 20lbs. or 22lbs. or 24lbs. An East Indian bale weighed on an average 400lbs. The density of the bale was from 40lbs. to 42lbs. per cubic foot, a density very much greater than in an American bale. The East Indian bale was very compact, and the density suited them very well indeed. The average weight of the tare on one of these East Indian bales was from 8lbs. to 10lbs. He had bought many thousands of bales of East Indian cotton and the weight of the tare had never exceeded 9lbs. What the Congress should decide were practical points, and one of those practical points was what sort of a bale was most suitable ? As to tare, there was no necessity for the excessive amount that had been mentioned except when there was fraudulent intent, and that was a second point that could be taken up, also the size of the bale, the type of bale required, what allowance there should be for tare, and whether the buyer should buy gross weight or net weight.

Herr KUFFLER inquired how the tare was ascertained if the spinner bought net weight.

Mr. JOHNSON replied that in his own case it was done by weighing a certain number of the bales.

Herr KUFFLER: At the mill ?

Mr. JOHNSON: Yes, and as a rule I have no difficulty. The average tare is about 9lbs., and rarely comes out less or more.

Herr KUFFLER: How do you get the allowance if it comes out more ?

Mr. JOHNSON: The question of allowance in case of the tare hardly comes into consideration. If a difference is found we can refer the matter to the seller, and he can send an agent in and the actual tare can be ascertained.

Herr KUFFLER: Do you pay for the cotton before you get it to the mill or not ?

Mr. JOHNSON: We always pay for cotton, speaking of my own mills, after it has been delivered and weighed.

Herr KUFFLER: That makes a considerable difference.

Mr. JOHNSON agreed, and added that in India they were in a very exceptional position. The cotton was delivered, and they

examined it and weighed it. They had another custom which he supposed would be quite impossible in Europe. If he received cotton which was not up to the quality he wanted, he simply rejected it, and it had to be taken away.

Baron CANTONI: The shape and size of bales which spinners would find most suitable has been discussed before, and now the question of the density of the bale has been touched upon. Of late years different kinds of bales of differing density have been put on the market. I do not know if the Congress can do anything to any extent to bring about alterations, but it is not useless to draw attention to the subject. One question is, will there be any danger to the fibre by greater density? In Indian cotton the fibre is not of such importance as it is in American cotton. Perhaps in Indian cotton pressure makes no difference. Can anyone say anything as to the spinning qualities of Indian cotton that has not been pressed?

Herr GROSS drew attention to the bale of cotton from Togo, which was on view in the Congress Hall. They saw for themselves what an admirably-made bale it was, and he expressed the opinion that there should be no greater difficulty in turning out satisfactorily packed bales in America than there was in Africa. Herr Gross also mentioned that a new type of American bale, called the "Luce bale," could be seen at the Bremen Cotton Exchange.

Mr. H. W. MACALISTER asked if there was anyone using East Indian cotton who could give them an idea as to the comparative value of one compression as against another? East Indian cotton, he understood, had been compressed quite recently to a density of 54lbs. or 56lbs. per cubic foot. Published figures showed that it was possible to increase the density of an American bale by 50 per cent. The point was whether cotton condensed to that extent was valuable as a spinning commodity. It seemed to him that if they had American cotton condensed to the density of Egyptian they would be no worse off than they were with Egyptian. Before he left America the suggestion had been made to a duly-appointed committee that an American bale should weigh 500lbs. or thereabouts; should be of standard size, width, depth, and height, and that it should be of standard density; and that the tare should not be more than 15lbs. or 16lbs. That was what they wanted to arrive at.

Mr. R. H. JACKSON (England) stated that in England in dealing with Surat cotton they found the conditions very much as Mr. Johnson said. In regard to tares they had very little reason to complain. As to quality, under a special clause if the cotton was off in quality more than one-eighth they could reject it. They paid for the cotton before they got it.

Mr. J. B. TATTERSALL (England) said the reason why the East Indian bale was much more compressed than any other kind of bale was that freight from India was by measurement, while freight from America was by weight. It was necessary with East Indian cotton to loosen the bands for a considerable time before using it. He did not think it was advisable that American cotton should be pressed to the extent that East Indian was. He was certain, as Mr. Macalister said, that if American bales were made up like Egyptian bales spinners would get all they required. Mr. Johnson had told them he paid for his cotton after he had got it and found that it was satisfactory, but anyone importing Indian cotton into England had to hand over his money before he could obtain his bill-of-lading or see the cotton, and they all knew that claims were much more difficult to establish after money had been paid. If American cotton was as well packed as Indian they would have no difficulty worth speaking about.

Mr. S. M. JOHNSON, referring to the remark that it was necessary that Indian bales should be loosened some time before the cotton was used, said: I have spun many thousands of bales, but I have never found that difficulty.

Mr. J. NUTTALL (England): As a user of both American and Egyptian cotton my preference is for a bale of the density and size of an Egyptian bale. With Egyptian bales we have no inconvenience respecting the tare, and personally I have no unpleasantness respecting the tare of American cotton. I have been able to avoid trouble by buying direct from the merchant on the distinct understanding that there should be no appeal to the Liverpool Cotton Association, but that the settlement of claims should be a matter of direct adjustment between the merchant and myself. On these lines all cases have been satisfactorily arranged and I have had no disputes. In my opinion the rules of the Liverpool Cotton Association are not fair to English spinners.

Baron CANTONI hoped the Congress would take note of these remarks, which showed that some spinners rose superior to the rules of the Liverpool Cotton Association, while others were obliged to defer to them whether they chose or not.

At this point the Congress adjourned for luncheon.

On the Congress resuming, the Chair was occupied by Señor DON E. CALVET (Spain), who, in opening the afternoon session, said:—

I beg to thank you for the kindness and consideration you show me in giving to-day the presidency of this Congress to Spain,

which country I have the honour of representing in the International Cotton Committee.

For some years, owing to the small harvests, the speculators, mostly Americans, have upset the cotton market with ruinously high prices, and have thus obliged spinners and manufacturers to work on short time, this being the only way to cope with the great increases in the price of the raw material.

The British Cotton Growing Association and the societies formed in other countries for the growing of cotton, have laid a foundation for the solution of this difficulty forced upon an industry employing an immense number of hands, and producing articles more needed by the poorer classes than the well-to-do. They have found a solution which, whilst opening up new ground for cultivation, increases the consumption of the manufactured article, helps to avoid short time, to regulate work, and to solve the social question which becomes so acute in industries where great fluctuations in the value of the raw material oblige one to work intermittently and irregularly, with results ruinous both for the employers and operatives.

This obviously proves that nowadays individuals cannot live independently, no more socially than economically. Commercial and industrial interests have developed to such an extent that it becomes indispensable to all who are called upon to produce and to distribute their productions throughout the globe, to join the ranks of associations constituted for the defence and protection of the interests of production. These Associations deserve all the more consideration if it is borne in mind that the workman forms one of the chief factors ; and his position will be guaranteed if by wise dispositions and prudent steps we can always make sure of work, the foundation of all prosperity and of the wealth of nations. If these relations are needed, and are even indispensable, between individuals for the purpose of solving differences which may arise, they are also needed internationally, to awaken those sentiments of fraternity and harmony so advantageous for that peace and concord which is in the highest interest of the peoples of all nations.

Therefore let us put forth all our efforts in order that these bonds between individuals and nations may be continually extended and strengthened ; and that by the adoption of such decisions and means as will assure stability to our industry we may do something to promote the well-being of that industry which is so vital to the interests of all countries.

M. JEAN DE HEMPTINNE (Belgium) then read the following paper on "Damp in Cotton."

Last year, at the second International Cotton Congress, Mr. H. W. Macalister read a most interesting paper on "Damp in Cotton," in which he explained very clearly the causes of dampness in cotton and the resulting disadvantage to cotton users. Spinners pay for the water contained in the raw material at the price of the cotton, and there are endless complaints on account of the great loss which cotton users have thus to suffer. Several members of the Congress spoke in support of the views expressed in the paper, which was unanimously approved. This important question has already been the cause of many discussions, and more than one remedy has been suggested. Mr. Macalister informed us of the steps taken by the English Federation of Master Cotton Spinners' Associations to convince the Liverpool Cotton Exchange of the disadvantages under which cotton users labour. The English Federation proposed to the Liverpool Cotton Exchange the making of experiments in order to arrive at a scientific determination of the amount of moisture in cotton, but these proposals were not accepted. Messrs. Gross and Kuffler have not been able to obtain any redress from the Bremen Cotton Exchange.

Since the Congress at Manchester we have unfortunately not made much progress towards a settlement of this question. The International Committee forwarded copies of the resolution adopted at the Manchester Congress to the various Cotton Exchanges, but little has been heard of any attempt on their part to remedy the grievance. Complaints continue to be made, and the high prices of cotton which have been ruling for so long aggravate the situation considerably. Whilst spinners have a perfect right to demand full compensation for their losses in this respect they have to content themselves with an allowance which is quite insufficient.

So far no serious steps have been taken to remedy these disadvantages. We are far from a solution, and from Liverpool, Bremen, and other Cotton Exchanges we are told in reply to our protests that the amount of moisture in cotton depends upon the state of the atmosphere, over which there is no control, and that in damp years there is a great deal of moisture in cotton, whilst there is little in dry years.

Spinners, of course, admit that cotton does contain a certain percentage of moisture, but they protest energetically against any artificial addition of moisture, either intentional or unintentional. They are of opinion that this artificial addition of moisture from whatever cause could be speedily checked.

In the first place, defective steam presses should be abolished. It frequently happens that there is a leakage at a joint in these presses, and thus a large amount of moisture passes into the cotton, not always by accident but sometimes intentionally. Presses should be used in which such leakages are impossible, and as there are already many presses of this kind in existence, their employment should be universal.

In the second place, it should not be very difficult to arrange that precautions should be taken to protect the cotton from dampness whilst in transit. At present even the most elementary precautions seem to be omitted. Might one not reasonably expect that cotton should be covered during the rainy season, and that it should not be allowed to lie about in muddy streets ? Why should cotton not be treated in as careful a manner as any other produce ? If this were done it would keep dry and complaints would cease. It would be a mistake to suppose that these reforms will be effected without some effort. Amongst other things it will be necessary to encourage habits of greater carefulness among all those who have anything to do with the transport of cotton, and this cannot be done without a good deal of supervision and careful attention.

Much good would be achieved if buyers had practical and scientific means at disposal whereby the amount of moisture could be ascertained. Once such a process has been found out it will be easy to frame rules according to which the amount of damage can be assessed. And it is certain that the seller, knowing beforehand that he would have to indemnify his client for excess of moisture, would take every precaution against it.

In principle, everyone recognises the justice of an allowance for excess of moisture, but the means of ascertaining the percentage is unsatisfactory. In Liverpool the mode of procedure in case of disputes is as follows : If buyer and seller cannot agree each of them nominates an arbitrator. These two arbitrators examine the bales, and estimate the percentage of moisture simply by the feel. They assess in that manner the weight which has to be allowed. If these two arbitrators disagree they appoint a third, and if one of the three arbitrators disagrees there remains the Committee of Appeal, which consists of twelve members : Three of these at least must examine the bales. If the lot consists of 5 bales, all the 5 bales are examined. If the lot consists of 50 bales, 5 bales are examined. If the lot consists of 50 to 70 bales, 7 bales are examined. If the lot exceeds 100 bales, 10 per cent. are examined.

In Bremen the mode of procedure is somewhat similar. In cases of disputes the allowance is fixed by an expert of the Bremen Cotton Exchange on the demand of one of the parties. The expenses are borne by the disputant whose estimate differs most from that of the expert. If the estimate of the expert is exactly between the two the expenses are divided. Both parties have the right to appeal, but in this case the expenses are payable by the appellant. The expenses of handling, &c., are paid by the buyer if there is no further allowance, and by the seller if there is an allowance to be made. All the bales must be examined. The mode of procedure in Liverpool and in Bremen is almost identical. In Havre the allowances are fixed by the brokers. Everywhere the simple act of putting the hand into the bale seems to suffice, and it is this primitive method which gives rise to so much dissatisfaction. It is indeed impossible for any expert to determine, in this manner, the exact quantity of moisture. All who have had any experience in the matter are convinced of this.

In the woollen industry a totally different mode of procedure exists. Whenever a lot is sold a certain quantity is subjected to a

scientific test in order to arrive at the percentage of moisture contained in the wool. If the quantity of moisture is larger than stated in the invoice, the seller makes a corresponding allowance, but, on the other hand, if it is less, the buyer must pay the difference. This very simple method has, as far as I know, not yet given cause to complaints, because it is fair to both sides. An experiment made on similar lines by the English Federation of Master Cotton Spinners' Associations was not successful, which shows that it is not easy to uproot established customs. The measures taken by the Manchester Federation may be considered as an attempt in which success could hardly be expected at once, but perseverance will command success. The matter is of so great an importance that it cannot be allowed to remain as it is at present. The cotton merchants should not interpret our complaints as being personally antagonistic. Are they not themselves often in dispute in this very matter with those from whom they buy cotton ? As buyers they are placed in a position similar to that of the spinner, and we all have the same interest in settling this old-standing grievance.

In this settlement detached efforts will avail but little, as has been seen in the results of the various attempts made in Liverpool, Bremen, Havre, and elsewhere.

In order to attain success, we must act with international accord, and we have at this Congress—where the majority of the users of American cotton are assembled—the opportunity of making a beginning.

The Belgian Master Cotton Spinners' Association has given constant attention to this important matter of excessive moisture in cotton. It has studied the question thoroughly, and whilst recognising the difficulty of attaining a solution with which everybody will be perfectly satisfied, it is convinced that there can be no insuperable difficulty in introducing a method more just than that now in existence. The question is complicated, and it is not possible in so large a gathering as this to devote the time to a discussion of the subject in all the intricacies of its details.

For this reason, and knowing that every delegate present must feel the desire for the removal of this constant source of irritation, I have the pleasure of proposing, in the name of the Belgian Master Cotton Spinners' Association, of which I have the honour to be President—the appointment of an International Commission, which shall make a thorough investigation of this subject and of the rules in general governing the Cotton Exchanges.

After reading his paper, M. de Hemptinne gave notice that on the following day he would move the following resolution :—

> " That a permanent Commission be appointed, consisting of three persons to be selected by the Committee or such of its members as may be deputed for the purpose, and it shall be the duty of such Commission to collect information on the baling, handling, shipping, and marketing of American cotton, and consult with the authorities of the various Cotton Exchanges

with a view to advising the International Committee from time to time on the steps to be taken to remove the grievances now existing on the points above mentioned."

Herr Ernst Ritter von Boschan (Austria) said: I welcome this resolution with great pleasure and satisfaction. It corresponds with all the points which I had in mind and which I fully expected would be mentioned here. I have investigated thoroughly the question of damp in cotton, which demands special attention if only for the reason that yarn must not contain more than a certain degree of moisture, whilst the spinner in buying the raw-material is entirely at the mercy of his supplier. During the last year I have subjected each lot of cotton I have received to a thorough test, and I have found that American cotton coming direct to my mill contained on an average 11·57 per cent. of moisture, whilst lots which have been bought "franco-wagon Bremerhaven" only show 11·03 per cent. Thus the accusation which has at times been levelled at the Bremen cotton merchants is not justified, as the lots coming direct from America have been found to contain a greater degree of moisture. The highest percentage which I have found in a lot was 16 per cent., and this was a lot of good middling, a really first-class cotton. This lot was "conditioned" on March 16th, and must have been picked in November or December. The fact that no exception was taken to this lot proves that the Bremen rule referring to damp in cotton is absolutely insufficient; and, everybody will be convinced that judging dampness by the mere touch is no definite system, especially in a seaport. I can assure you from my experience that I have never met with a single case where cotton, on being landed, has been reported to contain an excess of dampness. But in spite of this I am sure all those who take an interest in the matter will have the experience that cotton does contain too much moisture. This can be ascertained by a scientific test just as well as by ordinary weighing.

How the evil has to be remedied is clearly defined in the resolution. The question of excessive damp cannot be treated separately from that of packing. The original seller is, of course, very much interested in getting as good a weight as possible out of his bales. The loss rests always with the last buyer, *i.e.*, the spinner. The middlemen have in my opinion neither an advantage nor a disadvantage from excessive damp, and for this reason they have never felt the necessity of investigating the matter. The cotton being bought in bales, the seller has little interest in seeing that it is well protected from the influence

of the weather and from other injuries. I do not believe that there ever was a farmer who would leave his corn in open carts or in the street, because, although damp increases the weight of his corn, he knows that it deteriorates the quality. In other produce, of less value than cotton, means have been found to protect the users and to assure them that it is delivered in the state it ought to be. As an example I may cite beetroot. The Association of Sugar Manufacturers has protected its members, and the users of beet receive it now without dirt, whilst formerly they had to pay for dirt at the same rate as for the beet. The result of the present system of baling American cotton must inevitably be that the cotton arrives in a bad state, that there is loss of weight, and that a good deal of cotton has to be thrown away, being unserviceable owing to the dirt and mud of the streets adhering to it. If the resolution is passed, I have no doubt that spinners as a whole will be able to enforce conditions of sale with respect to damp in cotton which will satisfy their just demands. I shall therefore have pleasure in supporting the resolution.

Mr. S. M. JOHNSON said: In India cotton is packed in two different ways, viz., either loose or pressed. Cotton for export by rail or sea is pressed, that for use in spinning mills in close proximity to the ginning factories is usually loose. The pressed bale is the form in which European spinners are familiar with our Indian cotton, and it is in these bales that fraudulent damping occurs. In the cotton spinning and weaving mills in Upper India a fair proportion of the cotton used has to be imported by rail from distant markets, and the differences in weight are found to be a constant source of annoyance and loss. I must explain that in the part of India to which I refer the weather is nearly always dry, and in certain months the heat is terrific. As the bales of cotton take from 10 to 20 days to arrive at their destination, there was and is always a loss in weight on cotton that has been pressed in a damp condition. The evil was so persistent that I determined to visit the principal centres from which cotton was exported, and make myself acquainted with the conditions under which it was ginned and pressed. To do this the more effectually I purchased a fairly large quantity of cotton in the condition in which it comes from the fields. I had it weighed and ginned under my own personal supervision, and then transported to one of the numerous press factories with which the place abounded. One of the first questions I was asked was whether I wanted the cotton watered, as if so the extra charge over and above that for pressing would be so much per cent. I think

it was Rs. 10 per 100 bales. My answer was, of course, in the negative, and when this cotton ultimately arrived at the mills I found there were practically no differences in weights, and that the cotton was ever so much easier to treat, and yielded better results. Before leaving this cotton centre I found there was no secret or mystery regarding the damping process I have described! Nearly all the presses had a fixed charge for watering, and it was quoted without any reserve. The practice was to arrange the bales of loose cotton in single layers in the press yard, and men and women watered these with earthenware pots the evening previous to pressing, and I personally saw it being done.

Now, it is all very well to expose an evil, but the exposé is of little avail unless a remedy is forthcoming. Gambling in cotton is an evil which I suppose will continue, and I myself do not see how it can be entirely prevented, but the damping of cotton admits of easy prevention, and I would suggest, Mr. Chairman, for your approval, that this Congress passes a resolution asking the Secretary of State for India to adopt such measures as may be necessary to prohibit the damping of cotton in cotton-press factories in India. I may say that this damping to be at all profitable must be carried out on a large scale and more or less openly. It must be done on the premises of the pressing factory to ensure the full benefits of the process, because under transportation or exposure to the sun the moisture would evaporate. Very simple legislation would therefore provide adequate protection against fraud of this description, and I commend my proposal to your acceptance.

Herr STARK (Germany) expressed his entire agreement with the remarks of M. de Hemptinne. Severe punishment should be meted out to those who fraudulently damped cotton.

Mr. J. L. TATTERSALL (England) suggested that the concluding clause of the resolution should be altered to read as follows: "with a view to draw up such resolutions and forms of contract as shall be fair as between buyer and seller, the same to be submitted by the International Committee to the several associations represented in the International Federation for their approval or otherwise."

Herr KUFFLER stated that at one time he proposed that the Bremen Cotton Exchange should try to ascertain the amount of moisture in cotton, and this would not be difficult, as the majority of bales would pass without any scrutiny. Those could be left out. Then there would be a number where there were claims and where the representatives of the spinners and the merchants came to terms. Those could be left out too. Then there would be left a few upon

which the parties concerned could not come to terms. It would not be a great difficulty to ascertain the moisture in these lots, and if an allowance was not made in accordance with some reliable test the results could be tabulated and put alongside the allowance that was offered by the merchants. Two men, appointed to do nothing else, could make hundreds of tests, and in this way they could arrive at a knowledge of the exact position. If there was a possibility of getting at the truth of the thing he thought they ought to take the necessary steps. If the Cotton Exchanges did not do it the association might do it. The English Federation could do that easily enough by asking all their members to make tests when they had differences about moisture, and to have the tests tabulated and along with them the allowances made by the cotton experts. If they could have a table like that, containing several thousands of tests, and showing that the allowance of the Cotton Exchanges was on an average much below the actual moisture, then they could demand their rights from the Cotton Exchanges with much more power. He did not intend to propose a resolution. He merely threw out the suggestion. It was a matter that could be very easily done.

Herr STARK pointed out that spinners were in an unfortunate position, as they had to guarantee the exact amount of moisture in their yarn, whereas they could not get any guarantee with their raw material. He hoped there would be a settlement of the question in a friendly way. At present the spinner sometimes sustained a loss of four or five per cent.

Mr. E. STANSFIELD (England), referring to damp in yarn, said that on this question the relations between spinner and weaver were satisfactory, and they wanted the same satisfactory conditions and relations to apply with regard to damp in raw cotton.

Mr. J. NUTTALL said they had to take things as they actually existed. Spinners could not return the cotton, therefore they wanted the standard of the proper amount of damp in cotton to be fixed. If comprehensive statistics were taken they could demand arbitration or an alteration of the rules based upon the facts ascertained.

Herr KUFFLER said spinners could not return millions of bales of cotton to America with an intimation to the exporters to send dry cotton. What was necessary was to ascertain the average amount of moisture in cotton. The Congress could not ascertain that,

but it could instruct a permanent Commission to acquire a knowledge of the facts.

Mr. H. HIGSON (England) said he believed the whole of these difficulties would be settled when they came to terms with the Cotton Associations, and had a set of rules acceptable to both parties. The difficulty of returning cotton ought not to exist.

The following paper on "One of the results of the Union of Cotton Spinners of the North of Portugal," prepared by Luiz Firmino d' Oliveira and Felix Fernandez de Torres, was then read by Senhor FELIX FERNANDEZ DE TORRES :—

At the Congress held in Manchester last year, a few copies only were distributed of a short paper giving an account of the Association and organisation of the Cotton Industry in the North of Portugal.

That paper was written in a great hurry, a few days only before the Congress of 1905, and as it was not possible to get it translated in sufficient time, it was simply printed in French, at Oporto, and distributed in such an incomplete manner, certainly through our own fault, that no notice of it was taken, for the report of Congress makes no mention of it.

You will easily understand that we did not suppose this work would have much interest for you, and perhaps, indeed, you have not lost anything in not becoming acquainted with its contents.

Our country is so small in the cotton industry, and its share in the work of cotton spinning and weaving so insignificant in proportion to that of the rest of the world, that we cannot help asking ourselves, with a somewhat surprised feeling, representing, as we do, only a few hundred thousand spindles, whether it is really worth while troubling you with a few words on what is taking place with us, and which certainly can have but little interest for you.

You will have the goodness to pardon our importunity.

The paper just mentioned stated that the cotton industry is a very old one in Portugal, and it will be easily understood that it has been carried on there for a long time, seeing that Brazil, a Portuguese colony before her independence, and a country with great commercial relations with Portugal then and since that time, furnished, and still furnishes the raw material in abundance.

A rather scarce book at this present date, the "Souvenirs de Jacome Ratton," printed in London in 1813, gives some interesting information as to the industrial movement in Portugal in the last years of the seventeenth and first years of the eighteenth century. It is there stated that in 1788, this enterprising man had in view the establishment of a cotton spinning mill on a large scale in Portugal, and he ventured, either alone or with only one partner, to embark on this new undertaking, which was a formidable one at the period in question.

Success at first crowned his effort, but the great national upheavals caused by the war against Napoleon ultimately brought it to grief.

However, the first steps having been taken, the mill established by Ratton again began to progress little by little, and it constitutes to-day the works of the *Companhia da Real Fabrica de Fiação de Thomaz* (*Royal Spinning Company of Thomaz*), which, with justifiable pride, celebrated its centenary in 1888.

Since then, passing through different vicissitudes, several spinning mills have been set up, and there is no doubt that the cotton industry in Portugal now constitutes one of the most important trades connected with fabrics.

Although the first spinning mill was not set up in the North of Portugal, it is the North which stands foremost in that industry, as, by the way, in almost all other industries.

Portugal is a country which so to speak, has only two commercial maritime ports, Lisbon and Oporto.

Lisbon serves as a centre for the commerce and trade of the South and Oporto for the North. The South, not being so mountainous, offers rather a great field for agricultural cultivation. The North, which is more difficult for agriculture, with more subdivided rural property, and a soil which, in many places, scarcely produces anything else but the vine, whence are obtained those marvellous growths, the wines of Oporto, *i.e.*, port wines, presents to observing eyes interesting aspects for work.

As the activity of the population of the North of Portugal cannot so easily be made use of in agricultural work, its energies are directed rather to textile industries, and it is with deep satisfaction that Oporto hears itself called the Manchester of Portugal.

Coming back to the cotton industry, it is, as we have stated, the North which has progressed most remarkably, and one single fact will suffice to demonstrate what we are setting forth. The importation of raw cotton was 75,000 bales (15 millions of kilos), and there entered through Oporto for the North 62,000 bales (12,313,000 kilos), and through Lisbon the other 13,000 bales (2,620,000 kilos), according to the official statistical documents. It is true that the spinners in Lisbon sometimes come to buy a little raw cotton at Oporto, which can be understood, in view of the greater importance of the latter market. This is another proof of the much greater development of the cotton trade in the North.

Other industrial branches having likewise developed to a greater extent in the North, each branch has, at the outset, been obliged to form special associations. Standing in need of a more active union, several of them combined in 1852 under the title of the Industrial Association of Oporto. This Association, taken as a whole, and especially after its re-organisation in 1901, is a kind of Federation of different Associations which could, if existing separately, have their own independent life. The Industrial Association of Oporto represents therefore the general interests of all the industries of the North of Portugal.

The Association has formed within itself classes or sections, with one section for each industry whose interests required it. These sections have separate existence and self-government, with a president and secretary of their own, and all matters affecting that section alone

are dealt with in the general meetings of the members composing that section.

The relations of one section with another, or of each section with the government of the country, and with other associations, &c., can, however, only be dealt with by means of the general committee of the Industrial Association itself. The general meetings of the Association have the power to discuss all matters relating to the sections or classes, after these subjects have been treated upon in the sections themselves.

We shall deal in this paper solely with the two classes or sections of Cotton Spinning and Weaving, which represent not only these industries in Oporto itself, but also in the North of Portugal.

The principal cotton companies of the North have their head centre in Oporto, and all are inscribed as incorporated in our Industrial Association, forming part of the respective class. It is these two classes which have sent their representatives to this Congress, and these representatives occupy also the same position, of course, as regards the Industrial Association of Oporto. The facts we are laying before you, however, are given on our own personal responsibility.

The importance of the cotton industry of Portugal is enormous in the economic and financial life of that country. Mr. Macara said of England that "*there is no industry in Great Britain, except agriculture, which provides so much work, directly or indirectly, for the mass of the population, as the cotton trade, or which is of more importance for the commercial and industrial system of England.*"

These words apply with equal force to our country ; but it should not be forgotten that Portugal is a country which has, relatively speaking, only recently begun to look closely into its industrial interests, and, above all, its industrial relations with its colonies. Our home market, of which we have almost the entire control at the present day, is one of about 5,000,000 inhabitants, spread over a little less than 90,000 square kilometres.

Our market outside Europe is necessarily limited to our own colonies.

At present only few efforts are directed towards developing our trade in textiles with our East African Colonies, and it is therefore our Colonies on the West Coast of that Continent to which we can send our products.

As we possess no mines of rich coal we must import coal, because it is only in the future that our anthracites will become of economic use and value, and in addition we have to work up imported iron as we ourselves cannot at the present produce it cheaply. This notwithstanding the abundance and richness of our iron mines. Our workmen do not possess the technical ability which has in the case of the English workman been transmitted from generation to generation, and thus we cannot have the specialisation of manufacture which is possible in other countries, and which facilitates the obtaining of a maximum of production. We are also far removed from the great markets of raw material, and cannot therefore procure with certainty and at the right moment the quantities and qualities of cotton suitable for our varied classes of manufacture.

Our industry drew up its balances at the end of the year 1905 with a total amount of assests of about 19,000 contos of reis (a little more than 95,000,000 francs approximately); the nominal capital engaged was 55,000,000 francs; and there were sunk in buildings, land, and machinery, 13,800 contos of reis (slightly more than 69,000,000 francs).

The 12½ million kilos of raw cotton are transformed into yarn of all kinds, which is afterwards used in all sorts of woven goods, hosiery, &c.

But the importance of the industry is increasing every day. In the North even, in the neighbourhood of Oporto, two works are about to be erected for spinning very fine counts, intended for the production of sewing cotton. One of these works will be run on exclusively Portuguese capital, and the other will belong to the well-known firm of Clark & Co.

The industry of cotton printing still predominates at the present time in Lisbon; but one of the principal spinners of Oporto has just finished the installation of print works with the latest improvements, and not only will his cloths be printed there, but also those woven elsewhere.

It is impossible to foresee the degree of development which will be reached by the cotton industry in the North of Portugal. Without fear of any mistake, however, we may affirm that we shall succeed in supplying our own needs, and at some future time more or less distant, we hope to see crowned with success the efforts we have made, are now making, and shall continue to make to place our country in line with those which themselves produce the cotton-woven goods they require.

Such, briefly, is a résumé of the interests represented by the Industrial Association of Oporto, in its branches or sections of Cotton Spinning and Weaving.

In 1887 the importation of raw cotton was barely 5,000,000 kilos; in 1890 it had reached 8,200,000 kilos, to drop in 1891 to 7,200,000 kilos. It had thus increased by 50 per cent. in three years.

In 1891 Portugal began to pass through one of the most intense financial crises it has ever undergone, and this crisis was so formidable that its effects are felt at the present time, although we are now beginning to look upon it as over.

Protective ideas at that time began to get the upper hand, and in 1892 a Bill was passed fixing the custom-house regulations which are to-day still in force, not only for continental Portugal, but also for our colonies. The result of these regulations has been an extraordinary development in the exportation of cotton-manufactured products for our African colonies, seeing that, whilst in 1891 our shipments to those parts were only about 500,000 francs, in 1899 their value was 24 times greater. Now this comparatively sudden increase, in the period of half a dozen years, was made at the expense of a corresponding increase of productive power, that is to say, with an increase of spindles and looms. In proportion to this increase of manufacture there was a corresponding rise in the arrivals of raw cotton, and, as a matter of

fact, 15,672,000 kilos of the latter were imported in 1899, which is therefore more than double the importation of 1891.

This increase of production was made with the least possible inconvenience, both in the industry itself and in commercial business. No sure means were at hand for calculating to what degree the demands of our colonies were justifiable and could be considered as permanent. These demands had increased in a regularly progressive manner from 1891 to 1899. No one marvelled at that, and the attention given to increasing the productive power in like proportion to the demand, prevented us from examining closely into the reasons why our colonies were always demanding more.

But all at once, in 1900, everybody was astonished to see the demand from Africa fall off in a disquieting and remarkable fashion.

The new century ended its first year by leaving the spinners and weavers confronted with a future which showed itself full of disturbing elements.

In 1900 and 1901 the demand from our colonies fell off to a minimum incompatible with our productive power, and in 1902 our exportation was still lower. The situation was absolutely intolerable; but it was felt that it should be faced calmly, and that everyone, spinners, weavers, traders, buyers, masters, and men should help each other mutually to avoid the most formidable of catastrophes, the extent of which it would have been impossible to foresee, although all considered it terribly close at hand. In addition, in May, 1902, the working weavers at Oporto went out on strike, the greatest one that ever took place in Portugal, for during two months about 30,000 persons were idle at Oporto and its environs. For a country whose population is 5,000,000 inhabitants, it was an abnormal and grave state of things. This strike terminated in the workmen recognising that it was impossible for the masters to grant more than an advance of 10 per cent., which was ultimately accepted.

We had, therefore, to seek the remedies urgently demanded by the lamentable situation, which difficulties lasting for three years were bound to produce.

To complete the misfortune, the general cotton crisis of the world came on the scene to afflict us, in our small, humble, but flowery and beautiful corner of the globe. In this general crisis you yourselves have suffered along with us. And whilst we were engaged in curing our internal wounds—wounds which you, the colossi of the world, did not perhaps even perceive, so very small are we—you courteously called upon us to lend you our assistance, possibly useless, in order to ascertain what was to be done in order to avoid the evils common to all.

Your appeal reached us at a time when we were discussing how to remedy our internal troubles. It, therefore, came to people habituated to embarrassing situations, and accustomed to seeking the means to remove them.

We have therefore come forward readily, and now stand here, at your side, boldly resolved to do our best.

Our thanks are due to you for having solicited our co-operation, and we are here for the purpose of assuring you that our help will be as willing as it is sincere.

To you will fall the merit of finding the remedy for the world-wide crisis, but we shall have the satisfaction of a duty fulfilled, side by side with you.

So much for the general crisis.

With respect to our internal troubles, what have we done ?

When the African demand suddenly ceased, or almost so, as we could only rely upon ourselves, we sent to the Dark Continent a special delegate for the purpose of travelling through the principal centres of exchange of products with the native races, to gather precise data respecting the causes of the crisis which was troubling our colonies, in order to inform us as to what was to be done to remedy the painful situation there.

This delegate was so lucky as to be the last man of the white race who left the coast for the interior before the rebellion of the tribes of Bailumdo, and the first to come from the interior towards the sea after this rebellion was put down. He was, therefore, able to see everything under exceptional conditions.

The explanations of a political nature which he was able to put before us, were written in a report presented confidentially to the government of that time. The special information for our industry made us acquainted with the real importance of the African market to our industry.

The African market will always be a variable one, and the amount of the purchases it can make will vary with the price, in the European markets, of india-rubber and colonial goods or produce, and with the state of peace or war which the native tribes may maintain between each other, &c.

With this knowledge before us, a great part of our cotton goods then began to seek in preference the continental market. The latter being small, and the demand from Africa not being able to return to the point it had previously reached, the surplus of production was great and the consequences grievous.

The sale prices were at times ridiculous, and often were not remunerative enough for the capital and work. The balances closed in general in 1903 with losses, and then we began to study more closely some proposals intended to assure an exact distribution of the production of yarn, and to assure also a remunerative sale price.

We ended by adopting amongst these proposals the one which appeared to us the best, and which we are about to describe to you in detail.

The spinners chose three men, from among themselves, of recognised probity and intelligence, who were acquainted with the position and powers of each spinning mill. These men inspired in everyone a degree of confidence which the future showed to be well-deserved.

Some banking firms of the best standing in Oporto, with the help of persons directly and indirectly interested in the cotton trade, organised a collective society with unlimited power, and possessed of sufficient capital for the business in contemplation. The spinners stipulated, and this society or firm agreed, that the delegated directors

of the company should be the three spinners chosen by us. These three spinners as directors arrange along with each separate spinning mill the amount of production which should be apportioned to it in the total production, it was only when each master spinner signed with the new firm the contract by which the spinners sold to it their production, considering it as their general selling agent, that each learned what were the quantities allotted to the other mills. The distribution of the production was as exact as possible, and everyone was so satisfied that any little modification, which later experience showed to be necessary, was agreed to without hesitation by all the spinners.

This buying firm began by accepting in the first five months of its existence a production greater than it could sell. In this way it attained two objects : First, it created a stock of yarn necessary for the needs of the weavers in the execution of pressing demands, and, secondly, relieved spinners of the stocks they had produced by keeping their mills running. The spinners have by this means been able to turn into ready money their stocks on hand.

After the first five months a spinner was not allowed to produce in one month more than the company had sold of his production in the previous month, and thus the buying firm received each month exactly what it had sold the previous month.

There are, however, in the spinning mills some which spin exclusively and do not weave. These produce 52 per cent. of the total production. Then there are some which weave at the same time, and sell only their excess of yarn. These produce the remaining 48 per cent. of the total production. A plan has therefore been drawn up and agreed to, by which it is intended to compensate the spinners who do not weave for the greater income which may fall to the lot of those who do weave. The amounts allotted only to spinning mills form a total which has been considered as the maximum of possible sales. From this amount is deducted the sale of the previous month. This difference is shared by the spinners, but it is not so with respect to the total quantity produced by all the firms, whether spinners only, or spinners and weavers. Sixty per cent. of this difference is borne by the spinners who also weave, and the other 40 per cent. only has to be borne by the spinners who do not weave.

The purchasing society buys therefore really each month what it has sold the preceding month ; but what the individual mill sells depends not only on the total sale of the previous month, but also on its participation in the gross difference according as the spinner weaves or does not weave.

All the sales being made by the purchasing firm for its own account, the spinners have no need to trouble themselves whether the customers pay or not ; and in order to assure to it the remuneration for this *delcredere* and for the capital engaged, the buying firm receives a fixed percentage on the sale price.

This sale price is fixed by the spinners who do not weave, but the prices so fixed suit the spinners who do weave, as the yarn sold by the latter represents an excess of their production.

In this manner again we avoid the prices becoming so high that the weavers who do not spin cannot compete with those who do spin, and we are certain of having prices which secure only necessary and just profits.

In case of a rise in the sale price, the yarn in stock in the buying firm acquires a higher value than it had before the advance. This increase of value cannot be taken possession of by the firm; it must pay the same to the spinners and shares it among them in proportion to the allotment of each, for it can only gain the fixed percentage. In the case of a fall in price the spinners indemnify the buying firm in the same manner for the loss it suffers through the drop in the value of the yarn it holds in stock.

This combination began active operations in the month of October, 1904; and it was to come to a close at the end of 1906. But the advantages for everybody have been such, that the contract has just been renewed until the end of 1909.

Spinners, by means of this contract, have had a standard both as regards their production, and the selling price. The weavers who do not spin have been provided with a standard as to the purchasing price of the yarn, and thereby as to the price for the sale of their products. This price being practically uniform, competition was then directed to the designs, colours, and qualities of cloth only. The buyers of woven goods are aware that it is impossible for them to obtain them at prices which used to be at times ridiculously low, for they know that the weavers cannot buy the yarn at any other prices than those fixed by the spinners, and this price is the same for all.

After the previous troubles and inconveniences a comparative state of well-being now exists for everybody. The buying firm, powerful from a financial point of view, and in direct relations with the spinners, can help them more efficaciously by furnishing them with the credit which the one or the other of them may need for more favourable purchases of raw cotton, or for other reasons. The weavers, who are customers of the buying firm, can likewise regulate their credits according to their just needs, and as they can no longer be tempted to buy from a spinner at a given moment quantities of yarn beyond their power, they regulate in a more complete way their purchases and their sales without financial shocks to anyone.

The total quantity of raw cotton imported into Portugal is on the average, as we have already stated, 15,000,000 kilos per annum. Each spinner can, therefore, easily buy sufficient quantities of cotton for some months of manufacture. We can then, equally easily, keep up, during longer periods, the same selling price for yarns, notwithstanding the fluctuations in the price of cotton. After the drawing-up of the contract of which we are speaking, a fall took place, at the beginning of the year 1905, and now an advance of price, these being the only changes. The modifications of price referred to were made without any disturbance in business.

The importance or the value of our present method of selling yarn is such that the spinners of Lisbon, who are not incorporated with us, accept the prices we fix in the North, and do not deviate from them.

It is therefore the cotton industry of the North of Portugal which, through its spinning mills without any weaving department, fixes the sale price in the whole of Portugal. This is what we have done in our country in order to remedy internal evils. We have succeeded, we think, so far as was possible.

The good result obtained by thus regulating the price of yarns has also encouraged the weavers to think of working out a similar organisation for woven goods ; and, although the enormous diversity of products apparently renders this scarcely practicable, the fact is that the examination made has shown it to be workable, especially after having been done with respect to yarn. The bases of this examination are very few and simple.

(1) Distribution to each mill of a quantity of kilos of raw cotton proportionate to the number of its spindles and to the average counts it spins, with the obligation not to buy a greater quantity of kilos, except in case the consumption should require it.
(2) Not to sell the cloths at lower prices than those fixed by the manufacturers, and which must be regulated by a percentage of those interested.
(3) To produce all the articles they think fit, except when the buying firm points out that certain articles for the time being must not be manufactured, because it has large stocks of those particular goods in its warehouses.

The distribution of raw cotton is easily made and the fulfilment of the engagement to be entered into by the manufacturers, is likewise easily checked, because all raw cotton must pass through the custom-house. The agreement as regards the selling prices becomes effective because the buying firm will purchase and pay the manufacturers at the fixed prices for the products which the manufacturers themselves will not be able to sell direct. In its turn the buying firm is at liberty to purchase any manufactured article whatever, for it can afterwards intimate to the manufacturers that such an article must not be produced for the time being, because it holds considerable stocks in it. The equilibrium would be maintained in that manner and losses through forced clearing sales would be avoided.

Such is, in a few words, the result of the preliminary examination and what has been proposed. If it has not yet been realised, it is no doubt in some measure due to the relative state of well-being enjoyed at present by the weavers. But if some day any serious difficulties should present themselves in the placing of products, this understanding will certainly be borne in mind, or another similar arrangement will be entered into.

We thank you for the kindness with which you have been pleased to allow us to take up some of your time with this paper, and we again assure you that you may count upon our loyal co-operation in the continuation of the common labours to be performed in order to find remedies for difficulties which confront us all.

After the reading of this paper, the Congress adjourned for the day.

SECOND DAY'S PROCEEDINGS.

TUESDAY, JUNE 26TH.

Chairman: Mr. HENRY HIGSON (England).

The Congress assembled at 9 a.m.

The CHAIRMAN, after expressing thanks for the honour conferred upon him by his election to the chair, said: The question of cotton supply, which is, to-day, the first subject for consideration, is of supreme importance. In this matter America has been to us a very haven of rest. Owing to the shortness of the supply a few years ago an effort was made to provide cotton from other sources. To that end considerable sums have been subscribed, much interest has been aroused, and a good deal of work has been done. Cotton ought to be grown in all parts of the world where the climatic conditions are favourable. We all know the immensity of the industry, and the innumerable people dependent upon it for their livelihood, and therefore it behoves us to see that we draw our supplies from many parts of the world, and that we are not dependent on any one country. We shall agree, I think, that the difficulties of the industry, of damp in cotton, of bad baling and the rest, will vanish the moment we get a larger supply of cotton, and when we have that increased supply (and I believe we shall have it before long) we shall feel more confident of our ability to keep the machinery going. It is a matter of great consolation to the trade to know that vast strides are being made in the development of cotton growing, as we shall learn from papers to be delivered to-day and to-morrow. The results, I think, have been adequate to the efforts put forward, and I trust these efforts will be continued with increasing success.

Mr. E. LANG (Switzerland) then delivered the following paper on "Cotton Supply: Means at Spinners' Disposal for Securing and Regulating an Adequate Supply of Cotton":—

Introduction.

An English spinner, being asked a short time ago whether in his opinion cotton would rise or fall in price, is reported to have answered: "I am neither bull nor bear; I am an ass." Is this sentiment, which the Englishman expressed with so much humour, not shared to-day more or less by the whole of the cotton industry of the world?

After the surprises of the last few years, which have shown in meteoric fashion to cotton users the dangerous condition of the cotton market, after the first endeavours brought about by an acute crisis to stem the tide of speculation, we see our efforts succeeded by a comparatively lethargic condition accompanied by a resignation and pessimism which find expression in the words uttered by our English colleague. Frequently we see people resigned to the idea that little or nothing can be done to counteract speculation, and it requires a certain amount of courage or naïveté—whichever you like to call it—to appear at present before the public with any proposal which is designed to remedy the present unsatisfactory state of the cotton market.

Courage and naïveté are often found in people of small pretensions; and as the son of one of the least important States, both politically and economically, I desire to claim these two qualities, in order to draw attention to means which might bring about a certain stability in the cotton market, even if it cannot be claimed that complete mastery would be effected by them.

It will perhaps be advantageous if I state briefly the various remedies which have so far been suggested. If they have not been efficacious we can at least profit by the experience and find out which errors have to be avoided in order to arrive at a satisfactory solution, and which demands must be considered. Our short investigation is therefore not a criticism of any previous proposal, but aims solely at finding out useful material for the foundations of a future building.

I.

Proposals which so far have been made for the purpose of Regulating the Cotton Market and of Defeating Cotton Speculation.

The following enter mainly into the scope of our consideration :—

The Extermination or Limitation of Futures.

The Co-operative Purchase of Cotton.

The Purchase of Cotton Plantations by Spinners.

The Increase of Cotton Acreage.

The "Short-time" Movement.

The Collection of exact Statistical Details as regards acreage, consumption, visible and invisible supplies, of reliable information about the crop and the state of employment in the cotton industry.

The Adoption of a Temporary Cotton Reserve for defeating bull speculation and corners.

The **"Future" Market** has generally been made responsible in latter years for the great fluctuations in the price of cotton, with the result that many have suggested the extermination of the "future" market.

We quite agree that the "future" market is the instrument used in preference by the professional speculators for the performance of their fantastic play. The "future" market represents without any doubt a means of influencing prices both forcibly and readily; but I am convinced that the "future" market cannot be solely held responsible for the present state of affairs. The evil is deep-rooted, and the cause is to be found in the fact that the cotton industry—as well as the whole textile industry—is entirely without an assured supply of raw material. Aimless and without any plan, we, the whole industry, have considered ourselves as well adapted for using in our establishments a raw material of annual growth, which is entirely dependent on many uncertain circumstances, the chief being quite uncontrollable, namely, the weather. We must have our raw material, no matter what it costs. Speculators know this, and we are thus at their mercy.

We can only free ourselves if we succeed in assuring a regular and sufficient supply of cotton; that is to say, if we regulate the supply. Even if we admit that the "future" market alone bears the blame for the existing conditions in the cotton market, nobody will imagine that a law forbidding the same is quite so easily enforced. The interests which are nowadays so closely connected with the "future" market have attained such enormous dimensions that no country in the world, and least of all America, would put a stop to such an important source of income. A few years ago we saw, when it was a question of abolishing the comparatively insignificant "future" market in wool (tops), what enormous difficulties stood in the way of such a reform. Besides, one must not leave out of sight that the "future" market offers certain advantages in the eyes of many spinners, who would object to its extermination.

Opposed to the advantages—amongst which is reckoned principally the facility of an easy and long-distant cover of cotton—are many disadvantages, and amongst such we count (contrary to the usual opinion) the very fact of business which will be settled at such a long period afterwards. In consequence of such far-reaching contracts, prices of manufactured or partly-manufactured goods, such as yarns and cloths, are often fixed for quite a long time ahead, and experience has shown that it is often quite impossible on account of these contracts, to bring the prices of these goods to the same basis as that of the raw material. When cotton is rising, the market is usually well-supplied in advance for a long time ahead with cheap goods, or the cheaper goods may be obtained from those manufacturers who are in a position to sell at old prices, having bought cotton advantageously. When cotton falls great difficulties and often losses are the consequence of long contracts. The advantage of the greater facility for the regulation of the work of the mill, which no doubt is a point of great consideration, especially in large concerns, is more than counterbalanced by the disadvantage of a very unfavourable influence on the prices of the manufactured or partly-manufactured goods. I am firmly convinced that the higher cost of manufacture necessary with short-delivery contracts would find full compensation in the higher prices which would easily be obtainable for the manufactured goods. However paradoxical it may sound, it is still true that the "future" market,

whilst creating frequent fluctuations in the price of the raw material, yet renders the price of manufactured or partly-manufactured goods more stable. Both these consequences of the "future" market are detrimental to the cotton industry. Consequently, we share the views of Baron Cantoni (see his remarks at the first International Cotton Congress at Zurich), that at least a limit should be made to trade with long-distant deliveries, which is more practicable than its abolition.

To burden the "future" market with stringent rules and with increased taxation would not lead to success. Nor would an attempt to exclude all those who are not directly interested in the Cotton Trade. However estimable proposals of this kind may be, as, for instance, that of Mr. H. E. Thomann in his paper addressed to the Zurich Chamber of Commerce, "Speculation and Ways of Defeating the Same," they do not go to the root of the evil. Cotton speculators would always find ways and means of creeping in, the profits of their transactions being so large and so easily gained.

We cannot think at present of abolishing or exterminating the "future" market by law. The only way is to render it superfluous by introducing into the supply of the raw material well arranged and healthy conditions which would counteract the power of speculation. (1)

Another panacea for the evil has been suggested by England in the form of **Co-operative Cotton Buying.** The abolition of the "future" market fails principally on account of external opposition, whilst in the co-operative cotton-buying scheme the internal business arrangements form the opposition. Our English friends have soon convinced themselves of this. They have been told that circumstances on the Continent are entirely different from those prevailing in England and America. The Continental spinning mill is not solely an establishment for producing yarn. It is a commercial concern, with its accompanying ramifications. It often happens that by the seizure of favourable opportunities alone the Continental spinner is enabled to compete favourably with his English colleague who has many advantages over him. A co-operative cotton purchase, which must necessarily enforce exactly the same price for the raw material on all spinners, would bring ruin with absolute certainty, especially on small spinning concerns; and would, for this reason alone, encounter unsurmountable difficulties. *No Continental spinner will ever forfeit the absolute freedom and self-control in the purchase of his raw material. The efforts to defeat cotton speculation must not go so far as to remove entirely certain fluctuations of the raw material. There must still be a certain amount of latitude to the enterprise of the individual. The spinner does not demand stagnation but moderation.* (2)

The objections raised against a co-operative cotton purchasing scheme also apply in their entirety to that of **purchasing cotton plantations for spinners' own use.** The proposal is furthermore so much against the only proper principle of distribution of work, and presupposes such an enormous amount of capital in the hands of the spinners, that the whole scheme falls at once to the ground. Besides, it is hardly to be expected that the planters will so easily be dealt with. If one considers that the value of the acreage under cotton cultivation exceeds many times over the value of the capital invested

in the cotton manufacturing industry, the more probable question is whether the planter himself would not some day be in a position to run the mills.

The Increase of the World's Cotton Acreage.—This increase is without doubt a most important subject, but any tangible immediate result is hardly anticipated. The increase in consumption and the constant addition of spindles compel us to advocate as strenuously as possible an increase in the cultivation of cotton.

This is quite recognised theoretically, but in practice it is the cotton user who, through pressure on the prices, has repeatedly been the cause of stopping new undertakings in their infancy. A fairly remunerative and especially an assured price for cotton would do more to further plantations in new cotton districts than any official assistance that can be given. If we cannot guarantee these conditions for a lengthened period, and not only for a few years, the planter must always have the fear that by increasing his acreage under cotton cultivation he will not only bring about an over-abundance of cotton but his own ruin as well. Present-day circumstances compel the spinner to exercise a pressure on the price of the raw material, but they also compel the planter to reduce his production of cotton. The planter can do this readily, as he is not entirely dependent on his cultivation of cotton, whilst the spinner cannot go on spinning yarn without his supply of cotton.

Everyone will agree that these conditions are unsatisfactory. An improvement can only be effected by a combination. Spinners and planters must not act as if their interests were opposed to each other ; and an effort must be made to find a means for combined action to obtain a certain automatic regulation of cotton prices.

The planter must be able to reckon on a minimum price to cover at least the absolute average cost, and this will have to be guaranteed to him by the user, i.e., the spinner. (3)

This alone will be the incentive to an increase in the acreage of cotton cultivation, and will always obviate the danger of a cotton famine.

The circumstances in which **Short Time** can be worked on the Continent differ entirely from those existing in England. In England it is easier to introduce short time than it is on the Continent, because the English operative cannot, on account of the complete concentration of the cotton industry within a comparatively small area, go over to other trades, whilst this possibility exists almost all over the Continent. Nevertheless, the introduction of short time will prove necessary in cases of over-production or of excessive prices of the raw material. As Mr. C. W. Macara justly maintains, the burden should not be entirely borne by any one country. *Those countries in which spinners are not able to run short time should assist the others financially and thus help to share the burden.* (4)

Statistics.—Latterly, we have often had to acknowledge that so many issues of statistics, private and official, instead of creating an expected calm, have produced the opposite effect. It has often been stated that speculators would speedily take full advantage of statistics which were known to be trustworthy, and that statistics lose most of their

value when they become public property. If spinners ever learnt from an absolutely reliable source that cotton supplies would prove unequal to the demand, the rush to purchase would, of course, help on speculalation by forcing up prices. It certainly is a most unsatisfactory condition for the spinner never to know precisely how matters stand; and equally unfortunate that he is always liable to be deceived by false reports. But we are experiencing this condition in all our undertakings throughout our lives. There is uncertainty everywhere. In which way would it help us if we all knew the exact truth of the cotton crop? I venture to express the opinion that we would not be helped at all, because other difficulties, perhaps even of much greater magnitude, would take the place of those removed.

Reliable statistics regarding crops and the extent of engagements would in our opinion only be of real value in the case of a perfect organisation of all spinners with an Executive Committee of unlimited authority, capable of arriving at correct conclusions from statistics, and with power to enforce a general reduction of the output in times of insufficient supply of raw material or of over-production. So long as this idealistic condition does not exist, we cannot expect any real remedy from statistics of whatever kind they may be.

Purchase of a Cotton Reserve.—Of all the means so far proposed, it seems to us that the scheme propounded by Mr. Arthur Kuffler for the purpose of defeating cotton speculation is the one which would soonest effect a remedy, and that this scheme would be the easiest to put into operation. We are sorry Mr. Kuffler has not followed up the exposition of his scheme in more detail.

Nobody has denied that it would be possible to oppose speculation effectively with a few hundred thousand bales of cotton which would always have to be held at disposal. If it be possible to manipulate a whole crop at a time of shortage or overplus of two to three hundred thousand bales, logically the same quantity, which is comparatively small, ought to suffice to checkmate the speculator. Mr. Kuffler has shown quite correctly that it is solely the absence of a powerful opposition which enables the speculator to gamble daily with prices.

Mr. Kuffler's ingenious idea was on the whole favourably received, but doubts were at once expressed as to the feasibility of working the scheme. As you will remember, Mr. Kuffler planned in his scheme the formation of a Spinners' Co-operative Company which would buy at the beginning of each season a cotton reserve of some 100,000 bales. The members of the company were to guarantee, according to the number of their spindles, to take part in this co-operative purchase, and to take over at the end of the season at the average purchase price the corresponding quantity of cotton, which until then would have to be held in America. Mr. Kuffler thought of some 50 to a hundred bales per 10,000 spindles.

However small this quantity might be, it was sufficient to jeopardise the acceptance of the scheme, as there was a possibility of the guaranteed number of bales having to be taken over at a price above the current market price, thus entailing some loss to the guarantors.

It seems more justifiable to say that such a large purchase at the beginning of a season would have an unfavourable influence on the remaining cotton and send up prices. The influence which the executive or buying committee might exercise on the entire situation of the market was also blamed, and attention was drawn to the fact that the interests of spinners are not always identical. There will always be spinners who are "bulls" and others who are "bears," and their plans and calculations would be materially damaged by the unexpected action of the buying committee.

From the foregoing we may draw the following conclusions :—

The purchase price of a cotton reserve should never exceed a certain figure, and the purchase must only be made at a fixed rate, previously well known. (5)

The Executive Committee should not have unlimited power for the disposal of the reserve. In exactly the same manner as the highest limit of the purchase price should be generally known in advance, so is it necessary that a known price should be fixed for the sale. (6)

The purchasing and selling prices of the reserve should be so generally known that every spinner or manufacturer might take such steps that later on he would not be in any way prejudiced. The fixing of these prices should therefore take place at least one year before their enforcement, and should be renewed every two or three years according to requirements and under consideration of the existing circumstances. (7)

An organisation would have to be created which would act *automatically*, and entirely without personal considerations.

II.

The Regulation of Cotton Prices.

The Fundamental Idea.

We have tried, in the foregoing, to formulate some of the demands which any proposal must satisfy in order to establish a claim for closer investigation, and we will proceed now to deal with some other aspects.

It is a well-known fact that the size of the crop is not solely dependent on acreage, on the state of the soil, or on the manner of cultivation, but essentially on the weather; and even in America this cannot be regulated according to our desires. The fact that we are not always sure of a sufficient supply of raw material (unlike other industries, *e.g.*, the iron industry); that we are practically dependent on whatever crop each year may bring forth; that the crops, on account of the increased consumption, do not leave an abundant surplus as has sometimes happened formerly; and that we must expect to have frequent small crops, forces us to endeavour to discover by some means a method of carrying forward from one year the surplus of large cotton crops to another year.

This has been acknowledged by many as absolutely essential. The idea is not new, and if it has not developed into practice it may be accounted for either by the fact that the difficulties which present themselves have been over-estimated, or that people have been governed by the theory that the law of supply and demand cannot be interfered with.

It has to be admitted that the basis of any such scheme must be an organisation in which all the spinners of the world are joined. Only a few years ago the hope of seeing such an organisation would have been considered Utopian, but thanks to the efforts of some far-seeing men, we have now an International Federation of Associations of Master Cotton Spinners and Manufacturers. If these leaders succeed in finding a simple, generally-acceptable, broad-minded policy for this world-organisation, it is bound to make rapid progress, and it will, in the near future, be able to produce results of the most vital import to the whole industry. We are so firmly convinced that only the assurance of an adequate supply of raw material and the regulation of the prices by a cotton reserve will ever place the cotton industry again on a sound business basis, that we maintain that this alone can be recognised as the solid foundation for its future prosperity. In private life we look upon savings for a rainy day as of primary importance in order to assure ourselves of comfort in our old age. Does not the same principle hold good in the larger sphere of our economic undertakings ? Although our still youthful, frequently undeveloped business concerns err in many ways, they will not do so always, for if private enterprise is not able to bring about better regulated conditions—and these it can only accomplish by means of an organisation such as already pointed out—they are bound to make room sooner or later to communistic enterprise.

We shall endeavour to explain in the following pages how in the cotton industry an adequate supply of the raw material could be found, but in a short treatise like this we are bound to confine ourselves to the principal points. Moreover, it is hardly necessary to go into details, as various solutions might be thought out, and experience alone will teach us which of these will be the right one to adopt. We only desire to lay stress on that fact, that the scheme submitted by us seems to us in the general outlines a practicable one, always provided that an organisation embracing the entire spinning trade of the world is practicable. Without this universal organisation every effort to solve the problem will be useless, and whatever proposals are made must have as a basis such an organisation, or they will remain castles in the air. Ameliorations of the existing evil can only be brought about by self-help. They will never come to us of their own accord.

If our previous endeavours to improve those conditions, which are common to all engaged in the cotton industry, are of any value, we must not deny the possibility of a harmonious co-operation of the entire cotton industry; and, after all, however selfish we may be, we are inclined to think that common sense will outweigh this selfishness, and that consequently the task which we have set ourselves will finally be accomplished.

The Means for Putting the Scheme into Practice.

The best means for assuring a sufficient supply of raw cotton is without doubt to be found in the guarantee of a minimum price for cotton, as already indicated in dealing with the increased cultivation of cotton. The fact that the planter has the assurance of receiving for his crop at least what it has actually cost him to raise it, is bound to induce the planter to bring each year under cultivation an area sufficiently large to provide the entire cotton industry with sufficient raw material.

The argument so frequently used by the advocates of the " future market," that the planter has the opportunity of securing beforehand, by means of " futures," a price which might turn out to be favourable and encourage him to increase his cotton fields, is, according to our opinion, a fallacious one. The planter cannot sell anything he does not possess without exposing himself to a great commercial risk. If, on the other hand, he sells his cotton for future delivery *after* he has picked his cotton the transaction can, of course, have no more influence on his plantation.

The guarantee of a minimum price works quite differently. It assures the planter, even at a time of phenomenally-large crops, of the actual outlay for raising his crop, whilst he has an opportunity of making a good profit should the crop be a small one. The " future " prices are not always so high as to give the planter remunerative prices. A minimum price would, of course, cause a certain restriction of consumption, but this is exactly what we desire to attain simultaneously, however strange it may sound. Low prices seem to constitute for the spinner and the merchant the ideal for brisk and profitable business, unless they themselves are overstocked with high-priced goods. We quite agree that the turnover increases when the prices of the raw material are low, but we venture to maintain that this increased turnover is brought about at the expense of business in the future. Just as a well-regulated supply of raw material is an absolute necessity for the welfare of the industry, so is it necessary to the individual spinner to have continuous and well-regulated engagements for his mill. The cotton supply and the productive power of the mills are in the closest relationship possible, the one is dependent on the other. They must both be regulated at one and the same time, and if there is a means to be found at all which will benefit both alike, it is certainly in the fixing of a minimum price for raw cotton.

Whilst such a minimum price would, on the one hand, increase the production of raw cotton and, on the other hand, retard somewhat, or, rather, regulate the manufacture of goods when prices are too low, it would also allow the formation of a visible, or, perhaps, also of an invisible cotton reserve, and this reserve would act as the regulator of the crops from one year to another, such as is the case with a water reservoir, where a reserve is created by means of increased inlets and diminished outlets.

The cotton supply and the production of goods fluctuate nowadays from one extreme to another. The cotton industry may derive a temporary benefit from such a state of affairs, as has been the case recently, but what will be the certain consequence of the present boom ? An unavoidable crisis which will perhaps sweep away all

the profit made during this brisk time, if not also some of the hard-earned profits of former years. This is an intolerable state of things. The development of the industry and of the power of production are certainly quite natural, but these should be brought about by the gradual increase of consumption. In order to develop the consumption of manufactured goods in a natural way, it is imperative that the prices of the manufactured article should be subject to as few fluctuations as possible, and not give rise to-day to extraordinary purchases and to-morrow to a complete stoppage of the demand.

The regulation of the prices of manufactured goods is neither so difficult nor supernatural as many people still imagine. The commodity which is used all over the world and about which we have obtained the most perfect knowledge and experience is "Money." In the money market the system of artificially regulating prices has long been in use; for what else is the so-called "discount policy" of the large Government banks but an attempt to maintain values and to prevent an outflow of gold? In these very establishments "reserves" in gold have existed during decades. Without the power of regulating prices, and without a gold reserve, it would be impossible to imagine, nowadays, a sound state of affairs in the money market. The same principle applies to the cotton industry, and, in fact, to all economic undertakings.

Is not our entire system of capitalisation based on the principle of a "reserve"? Capital is nothing but a reserve.

The principles which have found their way into the money market will by-and-bye be introduced into the markets of other commodities, chiefly into those of raw materials. The scheme will always be feasible where we deal in raw materials which do not deteriorate. It is especially applicable therefore to cotton, which will keep for years in perfect condition if well stored.

Should the cotton industry be the first to take this step, it would prove once more that our leaders know how to adapt themselves to modern demands.

After these rather lengthy remarks, which, however, may not have been quite superfluous, our proposal will more readily be understood. It consists of five parts, viz.:—

1. *The establishment of an organisation or a limited company, comprising the entire cotton industry of the world, and of which individual spinners may become members without interfering in any way with their existing associations.*

2. *The formal engagement of this organisation to buy a quantity of cotton of the most-required grades, prices and quantities to be fixed by the spinners themselves by means of votes or delegates. These details to be known at least one year in advance of the purchase.*

3. *The engagement of this organisation to maintain this reserve intact until prices reach a fixed limit. This limit to be settled by the spinners themselves, and to be published beforehand in the same manner as the purchase price. The unconditional sale of this reserve at the fixed limit, either to members of the company or to outsiders. This for the purpose of regulating prices.*

4. *The payment of a fixed levy for every bale of cotton used in the mills of the members. This levy to be paid into the funds of the company for the purpose of defraying the expenses of the management, and*

5. *For the payment of an indemnity to those who adopt "short time," if it should not be possible to establish the cotton reserve either entirely or partially. This indemnity would have to be paid to those spinners who undertake at the lowest figure to stop their mills, and this "short time" measure would have to be started, and the indemnity paid, as soon as the cotton prices exceed the maximum limit fixed for the sale of the cotton reserve.*

Let us assume now, for the sake of simplicity, that the purchase and sale prices have been fixed by the spinners or their delegates at 4d. and 6d. respectively for middling American, and that the size of the reserve is to be 1,000,000 bales. The executive committee or the managing directors would then have the absolutely binding duty to accept every lot of suitable cotton until they had bought up 1,000,000 bales on the basis of 4d. for middling. They would not pay a single point above or below that figure. On the other hand, the directors would be obliged to sell that reserve whenever cotton reached 6d., or they would have to distribute the funds at their disposal as indemnity to those firms adopting "short time." Any other steps. or the intervention of the managing directors at any other time for the purpose of influencing prices, must be entirely out of the question; the whole must work like an automatic machine with absolute precision.

You will agree that by the system of a

Pre-arranged Purchase price,
„ Sale price,
„ Quantity of the cotton reserve

the whole operation becomes so simple that it is really nothing else but an order to a broker such as is given daily, only on a much larger scale. There is no question of profit, but solely an agreement to act strictly on the plans laid down by the scheme for the purpose of obtaining stable prices and regulating the market. It is mere mechanical work, which can be carried out by any ordinary board of management without the slightest difficulty, provided it has at its disposal the necessary credit from the banks and sufficient warehouses for storage. The board of management has nothing else to do but to buy a certain quantity of cotton in various grades and to sell it at fixed prices. It is not even necessary for the directors to go into the market to buy. It will be sufficient if they are prepared to receive orders for buying cotton, and file the offers and demands consecutively, until, according to the rules of the company, they have to act on them. It must be assumed that the natural consequence will be that the prices for the outside cotton will fall into line with those of the company. The regulation of cotton prices must be undertaken without any intention of making a profit on the transactions (which, by-the-way, would be in opposition to each other), as only then will the question of purchase and sale of the cotton reserve be easy to settle. In acting in this manner we can see no technical difficulties. *As soon as the funds are collected it will be easy to give a guarantee for the faithful carrying out of the rules of the whole scheme.*

At first sight there will no doubt be recognised in this proposal a similarity to the scheme proposed by Mr. Kuffler, both having in common the question of cotton reserve. But whilst Mr. Kuffler considers the reserve as a weapon with which to fight the speculators at any time, he aims indirectly at establishing stable prices, the intention being by his scheme to reserve the cotton market entirely for the legitimate trade of the spinners. It is proposed by the present scheme to effect a different purpose. The main purpose we have in view is the assurance of a sufficient cotton supply. Immediately this is accomplished, speculation will lose its foothold and is bound to become powerless.

If the following comparison may be admitted, we might say that speculation corresponds exactly to the fever in a sick person. It is not the illness itself, but it shows that something is out of order in the organs, and if you wish to obtain a thorough cure, you must deal with the illness and not alone with the accompanying evil, the fever. The best course, however, would be to prevent the illness from breaking out. Notwithstanding all the similarity with Mr. Kuffler's scheme, the present one differs in its basis considerably. We do not wish to belittle the praise due to Mr. Kuffler in connection with this matter, and may say at once that the ideas and inspiration given by him have been the starting point for the present examination of the whole subject. The future alone can tell which of the schemes is the right one. Meanwhile we are of opinion that the present one is easier to be put into operation.

Let us now examine whether and how the present scheme applies to the proposals enumerated on page 62. (1) It avoids the extermination of the "future market" (2) and leaves the spinner an absolutely free hand to buy his cotton where he likes. (3) It facilitates the cultivation to the planter and offers him a serious guarantee. (4) It arranges for the payment of an indemnity to those spinners who in the interest of their colleagues work "short time." (5) The purchase price of the cotton reserve cannot influence unfavourably the price of the remaining cotton. (6) All personal influence of the board of management when buying or selling the cotton reserve is quite out of question. (7) By the timely fixing in advance of price limits the spinner is protected against any surprises, and further he has the opportunity of reckoning with known facts.

In face of all these advantages we do not recognise any serious drawbacks. Even the question of expense, which is usually the stumbling block to such schemes, should not offer any great difficulties. It will be well to state here a few details in this respect. Of course, exact figures cannot be given, as these can only be ascertained by actual experience. The deviations can, however, not be very great from our estimated figures, and even considerable differences would not render the execution of the scheme impracticable.

The Expenses.

Interest at	$3\frac{1}{2} - 4$ %	per annum.
Warehousing, insurance, and (if the cotton is stored for many years) exchange	$1\frac{1}{2} - 2$ %	,, ,,
Staff	$\frac{1}{4} - \frac{1}{2}$%	,, ,,
Total	$5\frac{1}{4} - 6\frac{1}{2}$%	,, ,,

say on an average 6 per cent. per annum or ½ per cent. per month, which agrees with the usual delivery increase for actual cotton, and must be considered as a maximum when dealing with large quantities.

A million bales of American cotton would cost at a purchase price of 4d. per pound

£8,000,000 = Marks 160,000,000 = Francs 200,000,000.

At 6 per cent. the expenses for a reserve of 1,000,000 bales would be

£480,000 = Marks 9,600,000 = Francs 12,000,000.

Let this amount be distributed over a crop of 10,000,000 bales, or rather, a yearly consumption of that number of bales, and we receive a levy per bale of only

1 shilling = 1 mark = 1.25 franc,

or at the outside only ½ per cent. of its usual value.

Nobody will, we think, say for one moment that the consumption could not afford with ease this increase of ½ per cent., as a sort of insurance against the ravages of speculation.

The loss which spinners, manufacturers, and consumers suffer through the manipulations of speculators, who as totally superfluous parasites enrich themselves at the cost of producer and consumer has, been estimated as being many times the amount of that premium, buite regardless of the great indirect damage.

An important and perhaps the most difficult matter would be the collecting of the levy or premium. This could, however, easily be accomplished with a certain amount of good-will on the part of the spinners. One condition should always be observed, viz., that the amount paid is not charged separately at the end of a period as wages, taxes, rent, etc., but included at once in the price of the cotton, exactly as is now done in shipping charges and commission. Only in that way can it be made certain that the spinners will pay their levies promptly.

The simplest plan to achieve this end would be, at least for England and the Continent, to solicit the co-operation of cotton exporters, who would have to include the levy in the price of cotton and to hand it over to the board of management. In that way the collecting and the whole management would be considerably simplified, as one would have to deal only with some 100 firms instead of 4,000 to 5,000 spinners; and the latter would have to engage themselves to buy only from those cotton exporters (merchants) who belong to the convention. This is in our opinion the simplest plan for a world organisation. The cotton exporters (merchants) would, of course, have to show a proof of the payment of the levy to the limited company. The simplest way of doing this would be by means of receipts which could accompany the invoices. The spinner would have to submit these periodically to the board of management in order to facilitate the control. Again, one might use. for payment of this levy or premium, stamps which would require to be initialled or cancelled by some recognised system. In any case, these contributions could easily be collected by special offices. In order to assure that the full contribution

be paid at due date, one might demand a receipt for it, before entertaining the idea to submit a case for arbitration or judicial decision. The levy would have to be payable as soon as the cotton passed out of the hands of the cotton merchant into those of the spinner. The dealings between cotton exporter and cotton exporter and between spinner and spinner would not be rendered difficult by these means.

The question as to whether the cotton exporter would assist in the matter may be left over for the time being. If one considers that the legitimate cotton trade will have the greatest interest in such an organisation, and that no one suffers more from an unsettled state of the cotton market than the legitimate cotton merchant, it may be reasonably expected that he will gladly co-operate. A few important firms whom we have consulted in this matter have expressed their willingness to co-operate. It might be necessary to meet the willing cotton exporters by arranging that the purchase, the warehousing, and the exchange of the reserve which might be necessary would be effected through them. If corresponding arrangements are made in time, a reduction in the staff of buyers and a consequent saving of expenses could be effected.

The purchase would have to be effected according to the requirements of the spinning mills in various grades of cotton, but principally in fixed standards. In order to have the cotton immediately at our disposal the warehousing would have to be done not only in America, but also in England, and on the Continent, in accordance with the amount of contribution made by the respective countries. As regards the purchase prices in English or Continental markets, it would, of course, be necessary to add to these the shipping and carriage charges from America.

On these assumptions, the cotton exporters and shippers ought to be able to undertake to include the collecting of the levies by means of correspondingly higher prices,* and they ought to do this most readily, as they would thus prevent the formation of another combine of spinners for the purpose of a co-operative system of cotton buying, which might not so readily study their interests.

We are not on sufficiently intimate relations with leading cotton firms as to be able to say anything definite in the matter. Nevertheless we think most of the cotton shippers would not act in opposition to the general wish of the spinners, always provided that there is a sufficient guarantee. Even if the cotton shippers (merchants) should not fall in with the idea, the scheme still remains feasible, as the levy could always be raised direct from the spinners.

The Guarantee Fund.

In addition to the contributions of the premiums, it would be necessary to create a guarantee fund, which, besides the actual cotton, would serve as a guarantee to the banks which find the money for the cotton reserve.

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* These increases would amount to 2½/100ths of a penny per lb. Engl., or M. 0.25 = Fcs. 0.30 per 50 kilos. (about 110lbs.).

We are of opinion that at a purchase price of 4d., a cover of 1d., that is to say, cotton at 3d. per pound should be quite sufficient for this guarantee fund, or, in figures :—

£2,000,000 = M. 40,000,000 = Fcs. 50,000,000.

This amount ought to be easily obtainable if 4 per cent. to 5 per cent. dividend were promised. The money would perhaps not have to be actually paid in, but it would suffice if promissory notes were given. The interest would be paid even if the money were not actually or only partly wanted.

Those interested in the cotton industry, as cotton weavers, doublers merchants, &c., who could not contribute directly to the scheme, would notwithstanding have an opportunity to show the united strength by subscribing to the guarantee fund. It might be advisable to use the superfluous premiums and the profit, if the reserve were to be sold, for repayment of these guarantees, or a special sinking fund might be created from this surplus. If none of these suggestions were feasible, then the premiums during the first years would have to be collected.

Indemnity for "Short Time" and the Quantity of Cotton which can be saved by this Measure.

The very fact of an agreement amongst spinners to make an enormous purchase of cotton, as soon as it reaches a figure well known all over the world, would most likely prevent a fall to that price, and would thus render the purchase impossible. The mere existence of such a scheme would create a stability of prices in the neighbourhood of the purchase price and would consequently have the desired effect. We may also suppose that the larger stocks, which would be held under such circumstances, be it by the planters, by the trade, or the industry, would protect the market against any "bull" manipulations, because they would have a sure guarantee against fluctuation. If we have no cotton reserve, we could not stop too great an increase in the price, except by the introduction of "short time," which is a very powerful factor in the regulation of prices.

The necessary addition to the purchase of a cotton reserve is a perfect organisation for the introduction of "short time," and the fact that the premiums paid in, if not wanted for the purchase of the cotton reserve, would be disposable for indemnifying those who have worked short time, should materially facilitate the feasibility of working "short time."

We must therefore investigate in what dimensions an introduction of "short time" will be possible with the means at our disposal, and how much cotton could in that way eventually be withdrawn from consumption. Where the stoppage of mills or the "short time" system would be enforced does not affect the result. Consequently, we would stop at first those mills, the plant of which has been put down at the lowest rate, in order to be able to pay a low figure for the enforcement of short time. As an average price of a spindle, we think 25s. is sufficient, and the interest and depreciation would together amount to

10 per cent. On this basis the indemnity per spindle for a whole year would be :—

2s. 6d. = M. 2.50 = about Fcs. 3.00.

If we suppose, that after payment of the dividend for the guarantee fund and the expenses of the staff, taking these two items together as being one quarter of the annual income through premiums, there would still remain at our disposal :—

£360,000 = M. 7,200,000 = Fcs. 9,000,000.

With this amount we might stop on the above basis :—

About 3,000,000 spindles during one year entirely ;
or about 36,000,000 spindles during one entire month ;
or about 72,000,000 spindles during one day per week for three months.

If we consider that 1,000 spindles consume annually only 150 bales, we should thus obtain a

saving in raw material of about 450,000 bales per year.

We have already pointed out that one must not establish any fixed price as indemnity for "short time" (except perhaps a maximum rate), but that the cheapest offers should be taken into consideration, so long as the cotton prices remain above the maximum price, in this instance 6d., and provided that funds are still left in hand.

If one considers that with such high prices, the consumption generally goes down rapidly, that we have as a result over-production and losses in the mill, it may be surmised that at times there will be mills quite willing to introduce short time much below the rate to which under ordinary circumstances they would be entitled, and we should therefore be able to obtain with the same means a still better result than that calculated above. It might also be possible that some countries, which might suffer more than others from the burden of over-production, would besides subsidise their spinners, and thus render it easier for them to offer their mills for stoppage at a very low rate. By means of this proposed indemnity we should not only obtain a remedy for the cotton market, but at the same time an important reduction of the quantity of yarns spun, and a remedy if not for the entire, at least for the partial over-production. The advantage would consequently be a double one.

Here too all personal influence is out of the question, the allotment of indemnities being purely mechanical and according to a schedule, no objection could be raised against a free disposition of the board of management. The latter would only have to establish the relationship between mule and ring spindle, which, of course, cannot be considered on one and the same basis.

Another way of paying indemnity might be according to the number of bales used, less than the average consumption of the spinner, which, could be definitely fixed by means of the payment of the premium. The indemnity could, of course, only be paid to such firms as, at the time of introduction of "short time," have been members for some period before, and have their mills in full working condition. Protective rules against the unfair exploitation of the "short time" indemnity could be framed without difficulty.

The fear that the "short time" indemnity would be conducive to the establishment of new mills is hardly justified. The proposed measures aim at preventing a high level of prices, but should this not be attained, then in that case only would "short time" commence. There is no doubt that a cotton reserve or the instructions to pay those who work "short time" as soon as the raw material reaches a fixed price, would render the manipulations of the speculator exceedingly difficult. It would only be in rare cases that the maximum price would be exceeded and "short time" introduced, and on the strength of such an uncertain prospect of an indemnity, nobody would think of erecting new mills. The transitory large profits of limited companies animate people to build new mills—not the stable small profits. Therefore even in this direction the proposed regulating of the market may be of the utmost importance, preventing as it would a sudden increase of the spindles, which is always the result of an exceptionally favourable year. If spinning mills gave a more uniform profit, say 4 or 5 per cent., as this can be expected with more stable cotton prices, we should have quite a different influence as regards the erection of new mills, than a passing 10 per cent. or more. As soon as you have big dividends, the public thinks at once of new golden times, and the professional company promoters naturally use this very good opportunity provided by the declaration of these big dividends for furthering their objects.

A "short time" indemnity can only become dangerous when it is granted apart altogether from the price of cotton, and solely in consequence of bad times. This does not correspond to our proposal, which only provides for "short time" indemnity for one specific purpose.

Egyptian Cotton.

The regulation of prices proposed for American cotton would also have to be applied to Egyptian cotton. At the beginning one might take for a reserve about 100,000 bales or 600,000 cantars, and a minimum and maximum price of 5d. and 8d. Taking the purchase price of the reserve as 5d., the premium for each bale of Egyptian cotton actually used in the mill would be about

2s. = M. 2.00 = Fcs. 2.50.

which cannot be considered too high. It might perhaps be very easy to regulate the Alexandrian market, because the exporters there suffer enormously from the manipulations of the speculators, and furthermore they do not do such a large trade in "futures." In view of the fact that there are only about 30 export cotton merchants, a trial of our scheme might be made there first, although without the assistance of the American cotton markets it can hardly be expected to establish the regulating of prices for any length of time. However, we certainly recommend a trial there.

Final Remarks.

Some of our friends, who have taken the trouble to follow our explanations so far, will probably say this scheme looks very nice on paper, but it will not work in practice owing to the discord amongst those interested in the Cotton Industry. We have already

replied to this, that, unless it is considered possible to get the cotton spinners under the control of one energetic association, there is no use in attempting to discuss such problems and to call into being an International Federation. It is necessary to start somewhere in order to silence such pessimists. The trial will have to be made. Everybody will agree that a trial with a scheme, which is, so to say, a compromise of the various ideas and investigations submitted at previous Congresses, might be more likely to succeed in gaining the necessary sympathy than a more radical but one-sided solution. *It cannot be denied that the scheme is so far a healthy one, representing the only right point of view, that it protects the interests of all concerned, viz., those of the planter, the cotton exporter, the cotton user, and even the consumer (his client), and unites all the legitimate elements in a certain harmony instead of causing useless frictions amongst them.*

The scheme may have its faults and shortcomings. It certainly cannot govern either rise or fall. It is quite possible that with several successive large or small crops the proposed maximum and minimum prices could not be maintained. In view of the proportionately small expenses it might be possible to gradually increase the cotton reserve, and thus obtain a surer guarantee. If we remember what an enormous influence on the formation of prices some 100,000 bales have, we must agree that much good ought to be got from a reserve of 1,000,000 bales. It ought also not to be forgotten that should ever very large crops follow small ones very quickly, a *continuous* high or low level of prices must be the result. A compromise would be accomplished by the reserve without doubt, and in the place of sudden fluctuations we should have a slow change of prices and consequently less excitement. The fact that at normal times speculation would be practically barred ought to disorganise the whole clique of speculators and make them unfit for action should a crisis arise. Nobody would take an interest in cotton difference speculation, as the fluctuations would only be very slight. The "future market" would become less necessary, for the legitimate trade in futures would be practically abolished, and thus speculation would lose one of its best weapons. If, on the other hand, we continue on our old lines, we shall pay to these speculators untold millions, and need not be surprised if some day they have become entire masters and ruin us by their manipulations.

It may be said that the speculators will not be beaten so easily, and will oppose the methods of spinners and manufacturers by still more powerful measures. It is sooner said than done. The speculators may buy cotton here and there with the intention of raising the prices. It is easy for them to drive the unfortunate shorts into a tight corner; but they will not be able to use their cotton, and the moment is bound to come again when holders of cotton will be dependent on the spinners, when attempts to manipulate the market for any length of time will be duly revenged. The speculator will in the absence of a powerful organisation (and as such, we cannot consider a corner or a clique which changes its tactics constantly) now and then dominate the market and occasion startling fluctuations. The speculators' warfare cannot last long. The life-giving element to the speculator, is the general uncertainty and the unsteady market, which he creates principally with the help of the

press and the publication of an enormous amount of literature. Of course, it is not quite impossible for him to finally succeed in undermining the foundations of even the largest structure.

A Federation of Cotton Spinners can easily become master over such tactics. The mere existence of an organisation with a definite programme would suffice to restore order, but in order to do this the co-operation of the large majority is a "conditio sine quâ non." As an inducement to those spinners who generally prefer to see others do the work for them, we hold out the possibility of a gain. Indeed, should a cotton reserve ever come to be sold, this would mean a profit of 50 per cent. at a purchase price of 4d., and a sale price of 6d. This profit would pay the expenses occasioned through keeping the reserve (which we have estimated as being somewhere near 6 per cent. per annum) for eight years, and within eight years it is not impossible that the reserve would come to be sold. As the gain might be distributed, at least partly, in proportion to the levies or premiums paid, it is not improbable that a direct participation in the profits might take place. It is also not unlikely that the levies will be partially repaid. *It is quite possible that the cotton prices, without recourse to the purchase of a reserve and without payment of an indemnity for short time, may be kept within the pre-arranged limits, and that the mere existence of a powerful organisation will suffice to prevent too great fluctuations and checkmate speculation.* The only loss which would then be incurred would be the expenses of management, which are very small, as we have shown. Should it nevertheless be possible, by means of a federation, to hold the fluctuations of the prices within 4d. to 6d. during eight years, that is within 50 per cent., no spinner would repent having made such a trifling sacrifice, which furthermore he need not bear himself, but may put on the price of his manufactured goods.

One ought not to use any force in getting the spinners to join such a federation. If it comes to the worst, the names of those firms which are too selfish or have to be excluded from the federation might be published, the buyers of manufactured cotton goods would then be able to assist the general interests by not buying from those outstanding firms; thus the consumer of cotton goods could contribute to the improvement of the general situation, and probably the above remedy would suffice to get the outsiders into line.

It should be one of the first duties of our International Federation to cause the scheme to be discussed in the various associations, and to educate their members on the importance of such questions. Being much occupied all day long, the cotton spinner, manufacturer, or other business man, is inclined to regard a study of the economic problems as an unnecessary sport, or as a personal hobby, both of which are frequently avoided by the thorough business man.

It has long been felt by many far-seeing political economists that by continuing in this spirit of apathy we impede, or at all events bring to bear an unfavourable influence on the natural development of the economic life, and finally we are bound to face the catastrophe. What can we learn in this respect from workmen who frequently have not the advantage of a good education? As with politics, the future

dangers of the economic battle, whether purely social or purely economical, can only be dealt with by organisation and by the system of an "armed peace."

The founders of our International Federation of Master Cotton Spinners' and Manufacturers' Associations are men excelling in knowledge, energy, and unselfishness. When they founded the Federation they recognised the "armed peace" principle. The high position they hold in our industry as leaders will render it possible for them to guide the work with our united and harmonious co-operation to the desired end. The future will and must crown their work with success.

The following paper was read by Herr RICHARD BRANDTS (Germany): "Means to regulate the Cotton Supply."

I have to propose that a limited liability company be established by the International Federation of Master Cotton Spinners and Manufacturers' Associations, in which each cotton spinner shall take up shares to the extent of £5 per 1,000 spindles, and shall undertake to order 10 per cent. of his requirements in different grades of cotton from this company. Preference is given to the form of "Gesellschaft m.b.H" as compared with a public limited company, because it would not be practicable or advisable under all circumstances to publish the results obtained. Seeing that at the present time 60 millions of spindles are represented in the International Federation, the company would possess a capital of £300,000. The consumption of these 60 million spindles may be estimated at about 6,000,000 bales of American cotton, 700,000 bales of East Indian, 500,000 bales Egyptian, and 150,000 from other sources. Ten per cent. of this consumption would correspond approximately to a value of about £7,500,000. Whether or not a capital of £300,000 is adequate for a turnover of £7,500,000 is a matter which requires careful examination by competent experts. Should they decide that the capital is insufficient two alternatives remain open for consideration. The first is the reduction of the percentage of cotton dealt with to within the limits of the financial capacity which would still enable the company to fulfil the objects of its formation. The second alternative would be to increase the amount of capital contributed by the spinners per 1,000 spindles to the amount necessary for the purchase of the 10 per cent. of cotton. Even taking the basis of contribution as £10 per 1,000 spindles, no doubt as to the feasibility of the scheme need be entertained, as it is not unlikely that the money invested in the company would bring as high a rate of interest as that invested in the mills, besides taking the enormous indirect advantages into consideration. Such a figure as £10 per 1,000 spindles would, of course, only be asked if absolutely necessary.

It will remain a matter for consideration whether any shareholder should be allowed to order more than 10 per cent. of his consumption of cotton through the company; in any case the middleman should not suffer in any way, but rather be raised to a new and healthy state of prosperity. It must not be forgotten that the world's consumption

of cotton is increasing on an average of about 5 per cent. per annum, and, therefore, the loss of 10 per cent. will hardly be felt by the middleman. To obviate miscalculations, it should be mentioned that the company would have to fix the prices of cotton every day within the limits of the general price of cotton ; and that each shareholder would have the right to purchase the cotton from the source which appears to him most suitable. The freedom of action of each spinner with respect to the time of purchase would in no way be interfered with ; and the obligations assumed could not in any manner prove irksome to him. On the contrary it is to be expected that he would buy from the company on a cheap and sound basis.

Having roughly sketched the formation and objects of the company, we now come to the consideration of the question whether it would be, in practice, in a position to promote those objects which favour its establishment. In the first place, we have to deal with the matter of obtaining improved rules of Cotton Exchanges.

It would be one of the principal tasks of the company to practically test the possibility and usefulness of each improvement of the rules Cotton Exchanges desired and striven after by its members, whereby the valuable guarantee would be obtained for all parties that proposals approved by the spinner as regards the rules of Exchanges would in future be made.

Without dwelling more closely upon the facts that the company would endeavour, for instance, to keep within the narrowest possible limits of weight in bale contracts, would obtain a favourable percentage of tare for its members, and would deliver original bales in franco-waggon transactions as well as original grades, &c., &c., the closer discussion of one other question, which urgently demands an improvement of the regulations, will show us in what sense the company would be able to work in a beneficial and original manner, both for spinners and for the whole cotton trade. The question I refer to is to that of *how the regulations concerning damp in cotton* ought to be altered. Who will deny that this is of the greatest importance ? How much moisture should a bale of pressed cotton contain in order that the dampness may be estimated by mere touch ? Or do the experts when examining cotton for dampness always put their hands on the spot where the dampness exists ? And who would maintain that the dampness in such a pressed bale passes to any extent from within towards the outer part during the sea voyage or in the warehouses of the middleman ? And if, indeed, by chance a critical eye discovers excess of dampness in a certain bale, to what an alluring allowance does the spinner then joyfully look forward ? Can anyone calculate, even approximately, the loss which spinners have had to suffer through excess of moisture in cotton, especially during the last few years ? And who dares to assert that the present regulations represent the most elementary condition of justice ?

But, on the other hand, who would deny that a suitable workable solution of this question, satisfactory to all parties, would entail great difficulties and expense ?

How many attempts will be required before a practical solution is found ? Who will bear this expense ?

The company could and would unhesitatingly take up such great tasks; on the one hand it would be in direct communication with the farmers, and on the other hand it would represent only the interests of the spinners, and would continue its attempts until the results led to a practical proposal. From these considerations one immediately recognises what an important and fruitful field of work lies before such a company as I propose, and in which direction it would have to work in the interest of the whole cotton trade in order to obtain improved rules of Cotton Exchanges.

And now, how is the company to fulfil its task of obtaining "reliable information about the condition of the cotton crop?"

A warning note should be sounded in advance against too-high hopes being formed in the beginning respecting the result of its activity in this sphere, as the future must show how thorough such information ought to be and what influence it will have generally on the spinner, on the speculator, and on the public. On the other hand, the value of this information as against all Exchange reports, which have always a bullish or bearish tendency, must not be underestimated, as the relations with the planters in the cotton districts would naturally be very intimate. The reports would be consistent with truth and free from bias. Consequently, there is every reason to suppose that the world would look upon the information of this company as a guide in its dealings. It will not lie outside the bounds of possibility that the great ring of speculators would be obliged to frame their actions according to these reports. This would in itself be a great result, as by this means much reckless forcing of the market would have to be given up. But, in any case, information concerning the state of cotton which is, as far as possible, good, continuous, and free of bias, is in itself alone of inestimable value to the spinner. It is clear that the reports would have to be communicated to all spinners simultaneously, and would be made public after a certain period, because such information cannot possibly remain secret for long. The sooner the spinner is in a position to estimate as accurately as possible the quantity of cotton growing, and the consumption for the time being, the sooner he will be able to arrange the one in accordance with the other by means of short time if necessary. The great value of reliable crop information is in its use as a powerful weapon against speculation on a large scale. The International Federation of Master Cotton Spinners' and Manufacturers' Associations is the proper central organisation for the introduction of general short time, if it became necessary, a possibility with which spinners in future will, perhaps have to reckon to a greater extent than they will like. However diverse may be the state of things in the different countries, in the long run a general introduction of short time in a practicable form, with corresponding indemnity, will become an unavoidable necessity. It will be the most important problem which the International Federation, for the sake of self-preservation and in the interests of all the spinners, will have to solve. The mere possibility of a general short-time movement, together with good crop and consumption information, will take from the speculator his chance of doing serious harm. If, for instance, spinners had in good time this year caused an adequate reduction to be made in production, they could have felt easy as to what quantities

and qualities of cotton would be at their disposal for spinning in August or September.

In what a striking way could the company support by word and deed the endeavours which are rightly being made, in widely different countries, to promote the planting of cotton in the Colonies; on the one hand assisting to overcome difficulties by means of experiments in other countries, on the other hand purchasing and working model plantations, then again, by entering into negotiations for purchase of cotton in growth, and by delivery of good seed, &c., &c. It would also be able to develop its activity in the general interest of the spinner, by the formation of financial companies for acquiring ground for the cultivation of cotton wherever in the world the primary conditions are favourable thereto, and the productiveness demonstrable. The more the American farmers recognise that by means of their organisations, which are continually growing stronger, they can obtain in the sum-total a greater result for a small crop (which naturally requires less labour) than for a large crop in excess of the quantities required for consumption, the more necessary in the interests of all countries manufacturing cotton will be the systematic work of increasing everywhere as far as ever possible the planting of cotton.

We must not conclude without making mention of the difficulties which would have to be overcome in the formation of the company. It must not be overlooked that a gigantic organisation is necessary, which requires at its head the most able leaders, in order to do the work and to carry on such a world-embracing business. As, however, several similarly large companies are in existence which possess able leaders, we must not consider insurmountable the difficulties in the way of obtaining them. As regards the organisation, other companies of a similar nature will serve as a guide, and as the customers are always assured, we must come to the final conclusion that the scheme is not a Utopian dream, but is quite workable, and the sooner begun the better for the industry.

In judging the question as to whether this company ought to be formed, we must not allow ourselves to be swayed by petty considerations. We should do much better to ask ourselves *whether any and if so what grounds exist against the taking of suitable steps towards preliminary discussion.* The advantages which would accrue to us will not be all attained immediately, but will under competent direction make themselves felt slowly in a natural manner. We have, however, to reckon neither with unknown quantities nor with any risks worthy of mention, and however much or little may be gained, it will always be to the advantage of spinners. Before all things, the spinners among themselves, as also in the long-run both spinners and farmers, will be brought by a firm bond very much closer together. A common interest will be established and will develop mightily, bringing profit and blessing to countless multitudes.

Herr JOHN SYZ (Switzerland) said: Two years ago, when Herr Kuffler proposed his scheme of holding a reserve of cotton, we were all struck by the magnitude of the idea, and we certainly considered the subject well worthy of our fullest consideration. We regret that in Manchester

the subject was not followed up, and that we did not come to some decision about it. Mr. Lang has made this subject a special study, following on the lines laid down by Herr Kuffler, and taking up hints that he got in Manchester. When Mr. Lang's paper was before the Swiss Association they thought it was a very valuable paper indeed, and they concluded that it would be right when it came before this Congress to accompany it by some resolution, and they suggested the following :—

I. That the various associations affiliated to the International Federation be requested to give their opinions as to whether they consider it desirable to follow up the scheme for securing and regulating an adequate supply of cotton on a more stable basis, on the lines detailed by Mr. Lang.

II. That the various associations be requested to say :—

(1) Whether in their opinion the guaranteed minimum price for the co-operative purchase of 1,000,000 bales of American cotton would act as a stimulus to cotton planters, as soon as they see that the existing acreage is not large enough.

(2) Whether this guarantee would, by offering a certain protection against too great a depreciation in value, facilitate the establishment and maintenance of large visible and invisible stocks.

(3) Whether the cotton reserve would be conducive to a more regular and equal supply, and whether by selling the reserve at times of insufficient crops a cotton famine might be averted.

(4) Whether, in case of the non-existence of a reserve, the short-time system could be easily introduced by means of the large funds at disposal, so that a general introduction of "short time," and consequently a limitation of the cotton consumption could be accomplished.

(5) Whether the collecting of a levy or premium of about 1s. per bale for defraying the expenses, would be possible ; and which mode of collecting (direct from the spinner or through the cotton exporter or merchant) would be preferable.

(6) Whether the regulating of the market could also be accomplished in a similar manner for Egyptian cotton.

(7) Whether any modifications of the scheme are desired or appear necessary, and if so, what they are.

III. That the replies of the various associations be submitted, together with a report and with resolutions, to the Executive Committee with the object of having the matter dealt with at the next Congress.

The CHAIRMAN said the proposals would be submitted to the Committee.

The following paper, prepared by Mr. J. L. TATTERSALL (England), was taken as read after having been distributed amongst the members of the Congress :—

We have before us two most interesting papers, the first, "Means at Spinners' Disposal for securing an adequate and regular supply of Cotton," by Herr Ernst Lang of Switzerland, and the second, "A proposal for the Formation of a Company for the Purchase and Sale of Cotton," by Herr Richard Brandts of Germany. Both papers propose the formation of a company of spinners, but with different objects. The first proposes to purchase and sell a million bales of cotton at prices to be fixed by a later Congress after approval of the several associations represented—4d. being suggested as the buying price, and 6d. as the selling price—the object being to place on one side a reserve stock of one million bales to be sold back to spinners in a time of scarcity or high price, and to have the further object of encouraging the planter to grow more cotton by practically assuring a purchase of one million bales at the purchase price fixed, and at the same time to let the " futures markets " know that an undue inflation of prices will result in the releaseof this million bales. The second paper on the other hand proposes the formation of an ordinary trading company, the writer having the opinion that if spinners would purchase a portion of their supplies through this Company, it would give the company a power to influence Cotton Exchange regulations, to collect information about the crop, to support new fields of supply, and to bring spinners and planters into closer touch.

There is not a great deal of difference between the scheme of Herr Lang and that which Herr Arthur Kuffler of Austria propounded at the Zürich Congress, except that the main object of the latter scheme was to place in the hands of the directors of the company the right to enter the market as buyers or sellers, as a power equal to, if not greater than, any ring of "futures" manipulators; and by this means to regulate prices and prevent Cotton Corners.

The scheme of Herr Kuffler was very carefully considered at meetings of the English Federation and again at the Manchester Congress, but there was not sufficient interest shown in its favour to make it possible for the author to proceed further with his scheme.

It is quite evident that there is a growing conviction amongst spinners that it is desirable

1st., To have a reserve of cotton in hand to cover a short crop-year ;

2nd, To have some means whereby stability of price shall be maintained.

To gain these objects, however, there are now other methods at our disposal. When this Federation was formed two years ago at Zürich, there did not exist a united force amongst the American growers. The great short-time movement of 1904 in England, and the formation of our International Federation was an object lesson for manipulators in the " futures markets " and for the growers. The latter met at New Orleans in January, 1905, when a bumper crop was assured and prices had fallen below 4d. for middling, and decided to hold their cotton for a higher price.

Within three weeks we saw an advance of ¼d. per pound, which steadily increased during the summer months. Again in January this year, it being evident that the crop was to be but an average one, we find that the planters decided to hold for 12 cents.

We know that the result of this decision has been to steady the price of cotton, with a variation in six months of only a little over ¼d., and with a daily variation of but 3 or 4 points. We must recognise that the growers, standing firm together, have been the important factor in influencing the price; for when cotton has fallen below 6d. the Southern merchant has withheld from selling, and when it has been above that price he has been a ready seller.

At the recent meetings in Washington, when European and American spinners met the planters' and farmers' representatives, besides the undertaking of the latter to see to better baling (so strongly urged by Mr. Macalister, the Chairman of the Lancashire Private Cotton Investigation Committee) the planters informed the spinners that they were building warehouses in many parts of the country, so that they could keep back a quantity of cotton to deliver during the season or hold over to the following season, as circumstances should require. The planters therefore, it is quite evident, recognise that to keep prices stable it is first of all necessary to carry stock.

Now, as regards the individual spinner, is it not a fact that the Continental spinner already does the larger part of his buying in the months of November to January, knowing that he obtains the desired quality at fewer "points on" and that these months are therefore the most desirable to buy in?

In Lancashire, however, we have Liverpool so near that spinners are induced to continue their hand-to-mouth policy, resulting often in dearer summer prices and, this year particularly, in many more "points on."

What are the facts of the last 10 years? Taking the cotton season, October to September, the buying in November, December, and January has meant ¼d. per pound saved per annum.

Is it not desirable to look upon the carrying of several months' cotton as part of the "fixed stock" of a mill, always being "bull" to that extent? It will be found to result in more regular spinning and will enable spinners to hold off from buying for weeks together, when desirable.

In making these remarks about stocks, we are considering buying arrangements as at present carried on, actual cotton prices being subject to fluctuations in "futures," and to "points on."

At the Washington Conference, however, the Southern planters asked two questions of the spinners:—

1st, How much cotton do you require?

2nd, How much can you afford to pay?

The spinners quite naturally were a little suspicious and did not give a direct answer, fearing that if a certain quantity was mentioned, a little less might be grown, with the object of putting up prices, which were thought to be quite high enough, so that it is possible that some of the planters went away with the idea that spinners only wanted

plenty of cotton; and at a cheap rate, whereas several speakers endeavoured to show that they wished the South to get a good return for their money and labour.

It was suggested by spinners that cotton could be grown for 4d. per pound, but when it was pointed out by the South that there is a very large number of farmers who only grow five bales a year, and that a production of five bales at 4d. per pound only amounts to £40, we can easily realise that a price of 6d. per pound, bringing the return to £60, represents an important difference to the small farmer. Again, food stuffs, fertilisers, and labour become dearer each year.

The following quotations will perhaps make clear the growers' proposition :—

CHAS. H. FISH (manufacturer) : It is not a question of paying the grower what he wants, but what we can afford.

E. A. CALVIN (Farmers' Union) : If producers would fix a uniform price, could you adjust your mills to the conditions ?

C. H. FISH : We want a stable price ; not one day 10 cents and the next 12 cents.

E. A. CALVIN: Under normal conditions, would you care to approximate at this time, what you could afford to pay for cotton ?

C. H. FISH : One man's opinion is of no value. *Many mills make their profits by a rise in values.*

W. H. SEYMOUR (Southern Cotton Association) : Have you any suggestions by which a stable price might be established and maintained ?

C. H. FISH : I think that such a thing could be arrived at and must be arrived at. We must eliminate the speculative feature as much as possible.

I believe that the time will come when the price will be fixed by some definite means and the element of speculation entirely removed.

W. F. LIPSCEMBE (Southern Cotton Association) : Let the manufacturers fix the price, so that they can live, and let us have a living out of it.

E. D. SMITH (planter) : We ask you to go together and have a mutual profit and fix a stable price.

If you disregard this plea, we will use the financier and form ourselves into an organisation for simple self-protection, and then you will have to look out for your interests on the other side. You can meet us now, if you will, we are only two years old.

J. R. MACCOLL (manufacturer) : Where do you eliminate speculation ?

E. A. CALVIN : We eliminate it by letting it have nothing to do with it, and instead making a contract with you at a certain price.

In conclusion, I would ask your careful consideration of this apparently revolutionary proposal from the planters that we should conjointly fix prices.

During the past three years it has become more and more evident that we cannot expect much relief from any regulation of the " futures

markets," in spite of our Zürich resolution condemning "futures" and a similar one passed at the Washington Conference, and that we must therefore turn to the grower and admit that he has shown his power in fixing values during the last two seasons.

He holds out his hand to us; if we accept this advance we may rest assured that we shall be able to modify the planter's views; should we refuse, then we must remember that we are between the devil and the deep sea, and we may look forward to business being constantly unsettled by the action of the "futures markets," or by the action of the planter.

I will close by using two quotations from Herr Lang's paper :—

> "The only way to render the "futures markets" superfluous is to introduce into the supply of the raw material well-arranged and healthy conditions which would counteract the power of speculation."
>
> "A fairly remunerative and especially an assured price would do more to further plantations in new cotton districts than any official assistance that can be given."

Supplementing his paper Mr. TATTERSALL said : It was my idea, two years ago, that our international organisation would be all-powerful; that we should be able to say, "We are going to have such and such conditions," and all the world would agree to what we wished. But when one comes to think of it there are always two people to a bargain. This was clearly brought home to me at Manchester last year, when Herr Kuffler spoke for the second time on this subject, and there was an enthusiastic reception of his speech, but not of his idea. Alone, the spinners are powerless to get over the difficulties of purchase, of handling, and so forth. They have to remember the other man—not the Cotton Exchange, but the man who grows the cotton. The planter saw what Lancashire did in 1904. He found that though he put all his money into futures and into speculation in that year, there was a power in Lancashire which was a surprise even to Lancashire. When the Lancashire Federation decided on a nine months' short-time movement they had no idea that 90 per cent. of the mills would go on short time. Would the example of Lancashire be followed ? If the farmers combined, they would have the same power. In January, 1905, when cotton was 4d. a pound, the farmers met in New Orleans, stating that they were selling cotton at a loss. They decided they would not sell below 8 cents, and in 14 days they sent up the price. In January of this year, at another meeting, they decided to hold for as high as 15 cents, but probably they felt that if they got 11 or 12 cents they would do well. What has followed ? With a sufficient cotton supply, mills running full time, and an enormous trade, we have seen the price of cotton fall practically only a farthing a pound in six months, with a

daily variation of only two or three points. Is not this a desirable position? Undoubtedly. If we can have stable prices, or prices with small variation, it must be best for trade. This state of things, I am afraid, will pass away if we do not do something. The farmers, having made money, realise their power. They are well off, and they have proved that they can hold cotton. At the Congress at Washington the farmers talked to Lancashire, New England, and Southern States manufacturers. They asked, "How much cotton do you want?" The manufacturers, being a suspicious people, suspecting an ulterior motive, answered, "It all depends on what counts we are going to spin. We do not know whether the mills will run short time or full time." So they fenced the question, and the planters did not know whether the requirements were 10, 12, or 14 million bales. Then said the farmer, "If you will not tell us the quantity, say what price you can afford to pay." "Oh, no," replied the manufacturer. "It is not a question of what we will pay. It is a question of what we can pay." Another manufacturer said, "It is this way. Our mills depend on buying cheaply and selling when the price goes up." What I would like us all to do, for this is what it comes to, is to get out of our heads our individual interests and to look at the interests of the whole trade. I am certain it is an economic fact that fluctuations of price by one man buying at 1d. less than another are bad for trade. Such a man undersells, and the man who has to pay more sells at a loss or closes his mill. Following two lean years, there has come this great boom, the parallel to which no one can remember, but there will be a backset, I believe, shortly, when stocks are full. In these circumstances I ask you to consider the offer of the farmer who said, "I will agree to deliver a certain quantity of cotton for a certain price for the whole twelve months." That is the idea. How is it to be arrived at? It can be arrived at. No plan for making prices stable in which the spinner only is concerned can exercise lasting good. The plan must come from two sides acting together in a proper manner. I am confident, from the statements of the American representatives, that the farmers will accept such a plan if they are offered equitable terms.

Baron CANTONI, after congratulating the readers of the papers, said: Many of us forget the origin of our first meeting at Zürich. Let us remember the condition in which we then were, and let us also remember that we shall very likely be in greater difficulties than ever a short time hence. There are so many spindles at work that if we get a good crop and no lack of material, the conditions will be such as

we have never known before. The Congress must remember that the farmers are now conscious of their power. Short time, I admit, is a very effective weapon, but it is very difficult for Continental spinners to join in such a movement. To them it is the worst of plans, and to avoid it they must do what they can with the raw material. We should join the planters in a friendly way. The establishment of a reserve of cotton, I think, presents no difficulties, and it is the only way in which to get a stable price of cotton. If we do not want to be entirely in the hands of the farmers, we must have a reserve. The old Romans used to keep in stock thousands and thousands of bushels of corn, and why should not we do exactly the same thing with bales of cotton ?

Herr KUFFLER : I am much astonished to see from Mr. Lang's paper what a big stride this subject has made since I first introduced it at Zürich. We felt that it was a shame we should be the victims of Mr. Sully's extravagance, and that made us think of some scheme by which we could fight the manipulator. Then we did not think of making a stable price. We thought that fluctuations between 4d. and 6d. did not do much harm, but that fluctuations between 7d. and 9d. ought to be fought. I am not quite sure whether we are as much in need of such a scheme now as we were two years ago. Look at the course of the market during last year. After the conference of planters that took place in 1905, the price rose to 6d. Since then it has not changed much. The planters have arrived at a stable price without any very intricate scheme, and now that we have seen what the planter can do by his own effort we should, as Mr. Tattersall said, try to meet him and see what we can do with him. The American planter is willing to meet the spinner, and is fully aware of the fact that he has no more interest than the spinner in big speculations. Sufficient for the time is the spread of the idea that it is necessary to have a stable price. At the same time, we should investigate the question, and not believe everything that is said even by the planter. Much more important even than the stable price is that we should do nothing to make the price of cotton go too low. More evil comes from a low price than from a larger price. Too low a price leads to a reduction of acreage, and a short crop. Low prices always increase for the time being the consumption of cotton, and lead to new companies and new mills springing up, and we feel the effect. We have more competition, and the following years less cotton and more speculation. If we do not follow Mr. Lang's views and try to buy up reserve stocks when cotton gets too

low, the planter will do it. They are building warehouses everywhere in order to be able to stock the cotton, and they have money. They do not need to hurry the cotton to the market. I can come to no other conclusion than that it is very important that reserve stocks of cotton should be accumulated, and that spinners should meet planters in that respect. If we could arrive at some understanding and know what the planter is about, we should have achieved most of the things mentioned in the schemes that have been brought forward. As to the proposals of the Swiss Association, they can be referred to the Committee, who can ascertain the views on the subject of the various associations affiliated to the International Federation.

Baron CANTONI: We must remember that, though it is all very well to depend on the farmers, we must seek help and power by organising ourselves.

Mr. E. TRAVIS (England): Since we met at Zürich we have travelled a long way in the direction of securing greater stability in the price of cotton. The action then taken has shown the world, including the planter and the speculator, that spinners will not pay too much for their cotton. If that has led the planter to determine with equal strength of mind that he will not take for his cotton less than an amount that will fairly remunerate him that is a big step. If that is pursued for some time longer it will help to eliminate our greatest enemy—the speculator.

Mr. J. M. THOMAS (England) agreed with Mr. Travis. He said: I do not see what advantage we should get by holding a million bales. The greatest safeguard of our interests is the International Federation. To make it successful, we must bear equal burdens. We must not suppose that because it is difficult for the Continental spinner to stop his mills, therefore the English spinner only must stop. Equal burdens break no backs. The moment the Federation gets into such a position that the central committee can send out an order for every mill to pull up, we can control the price of cotton. We must remember that all must work together, and fortify our Federation in such a way that each member is subject to the order of the central authority. With organised short time we do not need to lose much. In my opinion that is the only way to control the price of cotton. Whether the price is 5d. or 6d. Mr. Tattersall says did not make much difference, but I think it does. We want to increase the number of consumers, and if we can supply goods at a

moderate price the people will use more. It does, therefore, in my opinion, make a difference whether the price is 5d., 6d., or 8d.

Baron CANTONI : How will you stop the fall of the price to 4d. or less, by short time ?

Mr. THOMAS : I should not be anxious to stop the fall of price.

Baron CANTONI : Then you will have cotton at 9d. the following year. Short time is an extraordinary remedy in a case of emergency.

Mr. THOMAS : I did not suggest that we should work short time, but I said if we were subject to instructions from our committee and the sellers of cotton knew we were subject to be called upon to work short time, that would be effective.

Herr ERNST RITTER VON BOSCHAN (Austria) : The proposal of Herr Brandt to buy cotton is one that Continental spinners are likely to agree upon. The Committee should have directions to find a way to carry out this proposal.

Mr. W. H. MORRIS (England) : Short time is occasionally a dire necessity, and is not undertaken for the fun of the thing. My opinion is that we should walk slowly, and then we shall walk safely. There are two forces at work, one against too low a price, and the other against too high a price. These forces need watching a little before we take any other step.

The CHAIRMAN pointed out that they had no formal resolution before the Congress.

Mr. E. STANSFIELD (England), speaking on Herr Lang's scheme, said : I am convinced that a stable price will not guarantee us a profit. It is immaterial to the spinner and the manufacturer what the price may be so long as there is a margin. That margin I think we could get with the aid of the schemes propounded.

M. CASIMIR BERGER (France) read the following paper on " Cotton Statistics " :—

The Congress held at Manchester in June, 1905, decided to establish and to publish statistics on September 1st and March 1st of each year. with the object of making known to the spinners and manufacturers interested the stocks of cotton held at the mills and in the warehouses for their account at the above-mentioned dates.

These statistics have had as a first advantage the grouping together of the spinners of the whole of the Continent, and at the time of the next statistical issue one may count on the reply of all the spindles of Europe with very few exceptions.

This is a very encouraging result. With such a new departure, one must always reckon on a rather lengthy period before obtaining the replies of the whole of those consulted.

These statistics are of great value, taken in conjunction with the figures furnished by the American monthly reports concerning the acreage and condition of the plant—reports beginning with June of each year—and with those furnished by the ginners, beginning with September, which give a very good idea of the size of the crop.

It is, therefore, for the sake of safeguarding the cotton industry, indispensable that the reports published—the acreage, and condition, and the ginners' reports—should be above suspicion, and give confidence to those interested in them. I believe that the American Government is doing its best to furnish exact information, but I think when the International Institute of Agriculture, inaugurated at Rome in 1905, takes this matter in hand, it will be able to furnish us with both exact and disinterested information on the real acreage of the annual plantation and on the yield of the crop after ginning.

Speculation, mistress of the situation after three years of high prices, having enriched planters and all those who have taken part in the manipulations, will not disappear all at once ; but seeing an adversary armed for the fight, will perhaps show less boldness in her operations, and bring about a slackening off in the fluctuations of prices.

Along with the reports of the ginners, one would be able to compare the figures of the spinners indicating their requirements and the figures of the ginners indicating the size of the crop, and it would then be possible to form an idea of the price of the raw material. But you must always reckon with the speculators, who seem to have used cotton as the article easiest to manipulate, it being a prime necessity in the whole world.

In order to put an obstacle in the way of the fluctuations so ruinous to the industry due to the speculation, the desire has often been expressed to establish a reserve stock of cotton, to which each spinner would have to contribute at the rate of say, 50 to 100 bales per 10,000 spindles.

With a stock thus created a stop could be put to the speculation by throwing a certain number of bales on the market, or by supplying the spinners, who would then abstain from purchasing for some weeks, but the difficulty is to form this reserve, as it would require a great deal of time. There would also have to be a considerable staff to attend to the business connected with such an enterprise, and the risk will always have to be faced of creating an upward tendency in prices in making the reserve.

It would be essential that the Cotton Exchanges of Liverpool, Bremen, Havre and Genoa give weekly the details of their stocks of cotton, stating which quantity of bales belongs to the mills and which is intended for actual sale.

The necessity for very exact statistics is making itself all the more felt as, at this moment of industrial activity every country is trying, perhaps wrongly, to increase its means of production so as to reduce its cost, and to fight more advantageously on the common markets. One needs therefore to be informed as to what prospects there are as regards the raw material, and to regulate one's production in accordance, unless one wishes to risk producing exaggerated rises which are the cause of ultimate losses to the industry when consumption slackens and the raw material returns to its normal level.

In conclusion, allow me to mention a fact which may interest all spinners, viz., the question, as it is spoken of now, of buying land in America, in the Southern States, by industrials of the Continent for the cultivation of cotton. This appears good and useful to me if it has the object of ascertaining the yield per acre of a well-cultivated piece of land, and of the exact cost of the cotton; this information would be very useful for the various trials of cultivation in all our colonies. But if the end pursued is to create new centres of cultivation in America, it seems to me that a mistake is being committed which may considerably inurje the expansion of the cultivation of cotton in the Colonies of the Continent.

Naturally, the cotton produced in these new centres of America, although it may be cheap, will follow the fluctuations of the regulating markets of New York and New Orleans, and thus give a new source of business and benefit to Americans; there will always be the temptation of selling at the highest prices, and of realising an assured benefit instead of working up this cheaply-produced cotton, it being always preferable to make an immediate profit instead of running the chance of one after the cotton has been turned into yarns or goods.

Mr. R. H. JACKSON (England) then read the following paper on "Cotton Statistics and the Price of Cotton":—

The object of the collection of cotton statistics is, in my opinion, to endeavour to find out on behalf of the producer and the user what is a fair price for cotton. With an accurate knowledge of the crop, the stocks, and the consumption, it seems at the first glance as if one could arrive at a satisfactory estimate of the price, but the element of uncertainty in demand arises, and this, of course, introduces a factor which has a constantly varying effect on the price.

First, to consider the crop. With the arrangements at present in vogue it is quite possible to get an almost accurate account of the cotton grown in any one season at the end of that season, but by that time the question of that season's crop has lost its importance, and all the anxiety is about the growing crop.

Or to state the position in another way, at the end of August, 1905, the commercial crop of American cotton was stated to be 13,556,000 bales, but at that time the question was, how is the 1905-1906 crop, which was then almost grown, going to turn-out?

In the United States the Agricultural Bureau issues in June an estimate of the acreage planted ; and from June to October it issues a monthly report of the condition of the growing crop.

This condition report is issued as a percentage, and is a comparative report, taking the figure 100 as representing an ideal condition. Of course, the percentage can be compared with that of the same date in previous years, and from this an estimate can be worked out ; but as the bases of the calculation are estimates the result can only be another estimate, and, I think, not one to be relied upon. How indefinite and misleading this system is may be seen when authorities such as Mr. J. R. MacColl (President of the New England Cotton Manufacturers' Association, Boston) and the well-known cotton expert, Mr. Shepperson, differ as to the meaning of 100, as the standard. Mr. MacColl, in his address of April 25th, 1906, says 100 equals a normal condition, whilst Mr. Shepperson speaks in one of his publications of last year of 100 as an ideal condition.

Since this was printed I have seen an official definition of the 100, a short summary of which is as follows :—

> So many of the reports of the statistician of the Department of Agriculture are based upon a comparison with the "normal," that it is a matter of the greatest importance that there should be a clear understanding of what the normal really means.
>
> To begin with, a normal condition *is not an average condition*, but a condition *above* the average, giving promise of *more than an average crop*. Furthermore, a normal condition does *not* indicate a *perfect* crop, or a crop that is or promises to be the very largest in quantity or the very best in quality, that the region reported upon may be considered capable of producing. The normal indicates something *less* than this, and thus comes between the average and the possible maximum, being greater than the former, and less than the latter.

What does this mean ?

It would, I think, be better to make a comparison of the actual condition with the condition of the previous crop at the same period, instead of with an ideal which has never been attained. The U.S. Weather Bureau also issues weekly reports, but these, like the reports of the Department of Agriculture, often seem to be pessimistic.

In December the Agricultural Bureau issues a final estimate of the crop, but for the past few years this has usually been so far wrong that no reliance can be placed upon it.

It is, however, not fair to blame the Bureau too much for this. Although it has been claimed that the methods are the best that can be devised short of an actual count, they are, as a matter of fact, only an elaborate and well-based system of intelligent guessing, as they were called by one American Senator in Congress.

The dissatisfaction with these reports led to the Census Bureau being instructed in 1900 to prepare a report of cotton ginned, based on reports from the ginners.

It was considered, as every pound of cotton must be ginned before it can be marketed, that the ginnery is the only place where an actual count can be obtained, and, that as the ginning is practically over by the end of January, a definite report could be obtained much earlier this way than by any other means.

In 1900, when the first attempt at this method was made, the difference between the Census report for the 1889-1900 crop and the New Orleans figures for the commercial crop was less than ¾ per cent. This difference arose almost entirely in one small group of counters where it was found on investigation that the reporting had not been properly done.

A further attempt was made in 1901, the final report of which, giving the total of the crop, was issued on April 12th, 1902.

The United States Congress, being impressed with the result of these two attempts, enacted a law establishing a permanent census office—one section of this law instructed the office hereafter to make an annual canvass amongst the ginners, with an additional provision for preliminary reports at brief intervals. In reporting the crop of 1902, three reports were given and 626 special local agents were employed, covering 685 counties out of 770. In these 685 counties 99·3 per cent. of the crop of 1901 was grown. In the remaining 85 counties there were in 1901 only 217 active ginneries of small capacity, ginning 63,482 bales, about ·7 per cent. of the total crop.

These ginners were furnished with blank report forms and requested to report by mail simultaneously with the local agents. The result of this report was 10,784,473 bales, and the New Orleans report at the end of the season was 10,728,000, a difference of 60,000, say about ½ per cent.

Since 1902, the arrangements for collecting the statistics for this report have been considerably extended. For the 1905 crop 701 agents were employed, and 10 reports issued, the final one on March 20th, being 10,737,398 bales ginned and 40,122 bales to be ginned, making a total of 10,777,510 bales of 500lbs. each, including 230,497 bales of linters.

The instructions given to the agents are very full and definite, including, amongst others, the following :—

Every ginnery must be reported, including those idle and dismantled.
Linters must be reported only in final reports.
Search must be made for private ginneries.
Reports must be collected by personal visits.
If any ginner refuses information, the agent must do all he can to obtain a reliable return elsewhere, and report the reason assigned for the refusal.

Besides these directions, a blank card for making the return is sent to each agent for each ginnery, a copy of which appears on the next page.

8—936
MANUFACTURES
COTTON GINNING

Department of Commerce and Labor
BUREAU OF THE CENSUS

EIGHTH REPORT—CROP OF 1905

This Report must include all cotton ginned from crop of 1905, up to January 1, 1906

File No...... ....., *1906*

State, **NORTH CAROLINA;** *County*.....

Location of Ginnery.....

	NAME	POST OFFICE ADDRESS
Owner.....	.....	.....
Operator.....	.....	.....

Number of bales of cotton ginned from crop of 1905, up to January 1, 1906:
Square .....
Round .....
.....

Remarks:.....

.....
(Signature.)

See Instructions other side. 11—2109

Instructions.

Every blank on the reverse side of this card must be filled out. If the establishment has ginned no cotton during the season to the date of the canvass, the word "Idle" should be written in the "bale" blank of the card; if the ginnery has been destroyed or abandoned without ginning any cotton this season, the word "Dismantled" should be written. No establishment should be marked "Idle" or "Dismantled" if it has ginned any cotton from the growth of 1905. To illustrate: If only one bale has been ginned, and that at the beginning of the season, this bale should be reported at each canvass throughout the season, and under the head of "Remarks" on the card, a proper explanation should be made, namely, that the ginnery has been burned, dismantled, or idle since ginning the product returned.

The total number of bales ginned by this establishment from the crop grown in 1905 must be reported. Report bales as pressed at ginneries, and do not reduce round bales to the square bale basis.

If more than one ginnery is owned by one individual, or operated under one management, a separate report must be made for each ginnery.

The card should, if possible, be signed by the owner or operator of the ginnery.

Be careful to report correct post-office address of owner and operator.

(Signed) S. N. D. NORTH, Director.

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By an Act of Congress, March 3rd, 1899, it is enacted that if any person refuses the information required, or gives false information, he is liable to a fine not exceeding 10,000 dollars, to which may be added imprisonment for a period not exceeding one year.

The first eight report cards are similar; the ninth, to be filled up with the quantity ginned to January 16th, 1906, requires in addition particulars of the weights of the bales and an estimate of the quantity still to be ginned. The tenth is like the ninth, but the date on which it was to be filled up was not settled until it was ascertained how the ginning was progressing. The date fixed upon this year was March 1st to 10th.

From these particulars it will be seen that the arrangements for making the report are very complete, and well thought out; and granted that the agents do their work thoroughly and meet with fair co-operation from the ginners there is no reason why a true and reliable report should not be made.

After an examination of the crop statistics and estimates for the past few years I do not consider it is at all possible to get at anything reliable until, at any rate, the January ginners' report is issued. Before this, of course, from the acreage report and the condition reports, both of which have not been trustworthy, a rough idea of what may be expected can be obtained, but how far it is worth the trouble is doubtful.

Next, to consider the quantity of cotton in stock and the consumption. The stock of cotton in the hands of merchants at ports, afloat, in Liverpool, &c., or what is known as the visible supply, has been regularly published, but the quantity in the hands of spinners until last year was altogether a matter of estimate.

However, last year the International Federation decided to obtain particulars of stocks and consumption from its members, and the United States Census Bureau obtained the same from the United States spinners.

In the report of August 31st, 1905, of the International Federation, returns were obtained from 46,726,929 spindles out of 68,222,736 in the countries covered; and in the report of stocks of March 1st, 1906, returns were obtained from 54,297,537 out of 73,394,800.

The increases in the returns were principally due to the inclusion of Austria and fuller returns from Great Britain and France. It is to be hoped that the returns from Great Britain will shortly show as good a percentage as those of some of the other countries; this could be attained by reports being got from all the spinners, whether members of the Association or not, as it is already done on the Continent.

The countries making these returns contain, practically, the whole of the spindles in Europe, with the exception of those in Russia, Holland, Sweden, and Greece, or about 73,394,800 out of 81,274,000.

The United States figures cover the whole of the mills in that country, the total given in last year's census report (Bulletin 25) being 24,077,524 spindles.

This is to say, out of a total number of spindles in the world of about 117,000,000, including 7,250,000 in India, Japan, and China,

which principally use East Indian cotton, reports have been received from 78,375,251.

With the stock and consumption of so large a proportion of the American-using spindles definitely reported it should be quite possible for a reliable estimate of the total to be made out.

When the final ginners' report is to hand, together with the other figures available, including the stock and consumption reports of the Federation and the Census Bureau of the previous year—possibly the March stock report of the Federation—it should be quite feasible to see if there is sufficient American cotton to last till the next crop is available. And if it was seen that there would be a shortage steps could be taken to meet it.

This information will prevent markets being upset by reports originated by speculators.

The following resolution, proposed by M. J. DE HEMPTINNE, was then submitted to the Congress, and unanimously adopted :—

> " That a Commission be appointed consisting of three persons selected by the Committee or such of its members as may be deputed for the purpose to act on the instructions and be under the control of the International Committee.
>
> " It shall be the duty of such Commission to collect information on the baling, handling, marketing, and shipping of American cotton, and consult with the authorities of the various Cotton Exchanges and the Associations of Spinners and American Cotton Planters, with a view to drafting new contract forms for the purchase of cotton which shall be fair as between buyer and seller, the same to be submitted by the International Committee to the various associations comprising the International Federation."

Mr. S. M. JOHNSON (India) asked if the Committee had considered the advisability of preparing a resolution on the lines of his suggestion with regard to damp in East Indian Cotton.

The CHAIRMAN : The Committee has had the matter under consideration, and has come to be the conclusion that it can be dealt with by the Commission just appointed. The Congress may rest assured that the question will not be lost sight of.

The Congress adjourned at noon.

THIRD DAY'S PROCEEDINGS.

WEDNESDAY, JUNE 27TH.

The Chairman of the International Committee, Mr. C. W. MACARA, presided.

Mr. MACARA announced that he had received the following telegram :—

"The German Colonial Cotton Growing Association extends its heartiest greeting to the Third International Cotton Congress; it offers its assistance in the important work of opening up new cotton areas and wishes all success to its deliberations."

The chairman was requested to reply to the telegram, reciprocating the good wishes that had been conveyed.

Mr. J. C. ATKINS (England) read the following paper, which he prefaced with the remark that if the efforts of the British Cotton Growing Association and of the Continental associations continued their success a great many of the evils which had been spoken of during the two previous days would be done away with.

The Work of the British Cotton Growing Association.

The necessity for persevering with the work engaged in by the various associations to enlarge the area of cotton cultivation, and thus increase the supply, is still urgent; in fact, it is not too much to say that the position grows more serious each year.

The American crop of 1904-5 was the largest ever grown, amounting to 13,600,000 bales. The price of middling American went down in January, 1905, to 3·74d.; afterwards, although the supply was ample, the talk of reduced acreage caused a gradual rise, with many fluctuations, and the market has been at the mercy during the whole season of the vendors of sensational reports of damaged crops, reduced yield, &c. The price in December reached 6·42d. Since that date there has been a gradual decline, but there is every appearance of an advance in the near future.

The crop of American cotton last season is now acknowledged to be about 11,000,000 bales, or a reduction of nearly 3,000,000 bales.

The Egyptian crop is also expected to be less than the previous season, and in India the weather in many parts has been exceedingly unfavourable, and consequently the yield of cotton is greatly reduced; thus the outlook for supply is not cheerful, and added to this is the extraordinary increase in the number of spindles all over the world, but particularly in Lancashire, one important feature of this increase being that the majority of new mills are for spinning Egyptian qualities.

In the report on Egypt and the Soudan, recently issued by Lord Cromer, the following significant reference is made to the prospects of cotton in Egypt :—

> "Sir Vincent Corbett in his Egyptian Estimates draws attention to the fact that, although of recent years the acres of land under cotton had been steadily increasing, the total of the crop had remained stationary, and had even diminished. The total crop in the year 1904–5 was 6,352,000 kantars. This was less than the crop of the preceding year (6,509,000 kantars), than that of 1901–2 (6,370,000 kantars), than that of 1899-1900 (6,510,000 kantars) and than that of 1897–8 (6,543,000 kantars). It is also stated on undoubted authority that the quality of the cotton tends to deteriorate. There can be no question as to the gravity of these facts. They deserve the very serious attention both of the Government and of all interested in the cultivation of cotton in Egypt."

We are therefore still face to face with the problem which has been so ably described before, *viz.*, the urgent need for widening the area of growth both of American and Egyptian qualities.

Another development which is fraught with great possibilities is that the American planters and merchants are combining to limit wherever possible the area of cultivation, and also to keep back cotton when grown, in order to influence the market price. The only effectual remedy against these tactics is to open out fresh fields for cotton growing. It is said by many authorities that the Southern States of America are capable of producing enormously increased quantities, and that it is madness to attempt to compete; on the other hand, others say that the capabilities of the States are limited, particularly in the supply of labour. Whichever view is correct, the fact that the cotton trade depends for three-fourths of its raw material on America renders it an absolute duty on the part of English and Continental spinners to use every effort to find other sources of supply.

The British Cotton Growing Association recognises fully the magnitude and difficulty of the task it has undertaken, but having taken the work in hand, every effort will be made to carry it to a successful issue. The same spirit animates the Continental associations, and, all working with one common object, difficulties will be overcome and success attained.

The objects and desires of the British Cotton Growing Association were fully described last year by Mr. J. Arthur Hutton, and it is not therefore necessary for me to repeat the tale so well told. I will content myself by stating the present position, and giving a short account of the work in the various Colonies and Dependencies.

During the past year the subscriptions to the Association's capital have amounted to about £30,000, the total amount subscribed to date being £233,000.

Various efforts are being made which it is hoped will greatly increase the capital, and thus enable the Association to proceed more rapidly with the work in hand. All classes have subscribed—employers and employed, merchants, cotton brokers, yarn agents, shippers, calico

printers, bleachers, banks and insurance companies, railway companies, colliery owners, brewers, &c.

It is fully expected that much of the capital subscribed will be expended in pioneer and educational work, but it is confidently believed that in addition to providing an alternative supply of cotton, a lucrative business will be built up, and the shareholders receive some return on their capital.

Dealing with the work of the Association, it must be again stated that the object is not to become growers of cotton, but to encourage and assist others in the work, provide ginning and baling machinery, and attend to the marketing of the cotton. During the past year, despite many discouragements, progress has been made, and the Association feels that success will ultimately be achieved.

INDIA.

The Association has succeeded in arousing the Government of India to the necessity of strenuous efforts being made to improve the quality of the cotton grown, and by means of improved cultivation to increase the quantity. The Agricultural Department has taken up the question—duly qualified men are conducting experiments in various districts, seed farms have been established, and efforts are being made to improve the position of the ryots or small native planters, and so enable them to avail themselves of any improved methods of cultivation, and to secure proper seed. With this object it is probable an attempt will be made to introduce Agricultural Banks similar to those which have been such a great success in Egypt. Large experiments are being made with tree cotton, several varieties of which have grown wild in many parts of the country. Owing to adverse climatic conditions no definite results have been secured; sufficient cotton is grown, however, to give hopes of success in the future. The experiments are being continued.

In Sind (North-west India) where the conditions are somewhat similar to Egypt, experiments with several varieties of Egyptian seed are being carried on by the Government Agricultural Department, under the direction of Mr. Fletcher (who, by-the-way, is a Lancashire man), the Assistant Director of Agriculture. The results are very encouraging; a lot of eleven bales grown last season sent to the Association has recently been sold at 9d. per pound. The price of good fair Egyptian on the same day was 10d. per pound. Messrs. Ralli Bros. have imported about five hundred bales of the same cotton, which they value at 10d. There is therefore every encouragement to push forward vigorously the growth of Egyptian cotton in this Province. Mr. Fletcher is very sanguine that it can be profitably grown, and in large quantities. The Association, in order to assist the efforts of the Indian Government, has agreed to contribute £10,000 towards the expenses incurred in placing the industry on a better basis.

A few years ago it was confidently predicted that it would be impossible to do any good in India, but the Association is now confident that by the selection of seed, improved cultivation, careful ginning, and the keeping of different varieties separate, very great results can be obtained.

WEST INDIES.

Marked success has attended the efforts of the Association in the various West Indian Islands.

The question was eagerly taken up by Sir Daniel Morris, the Imperial Director of Agriculture, who has done everything possible to make the industry a success. These islands are the home of the Sea Island variety, and this quality was found the most advantageous to grow there. Although it is only four years since the industry was started it has rapidly developed, and is now on a commercial basis. The cotton is of a very fine quality, and has fetched prices ranging from 12d. to 20d. per pound.

The following extracts are from a report by Sir Daniel Morris :—

"A comparison of the figures for the two years 1904 and 1905 is as follows :—

Year.	No. of Bales.	Weight in Pounds.	Estimated Value of both Seed and Lint.
1904	2,435	695,981	£30,056
1905	3,956	1,122,800	£63,291

"As the West Indian cotton industry is a new one (it was started only four years ago) the result must be gratifying to all who are interested in the welfare of these Colonies, and especially so to the British Cotton Growing Association, whose valuable assistance has been of great service in fostering cotton growing in this and other portions of the Empire.

"The prospects of the crop of 1906 now being shipped are very promising. The total yield will probably show a considerable increase on that of 1905. Judging by the results of the sales that have already been made, prices are likely to be fully maintained.

"The first shipment of new-crop cotton from Barbados was recently sold at the rate of 16d. and 16½d. per pound. A small shipment of five bales from St. Vincent obtained 17d. per pound.

"I will add that this Department will continue to watch over and encourage the industry in every possible way. Already systematic efforts are being made to supply the planters with selected and disinfected seed for planting for the crop of 1907.

"We may now regard the West Indies as practically independent of the United States in the matter of seed supply. Owing to the fact that the best West Indian has obtained on an average higher prices than cotton produced in the Sea Islands, applications are being received from Florida and Georgia for improved seed from the West Indies. Similar applications are also being received from Cuba, Porto Rico, and the French Indies."

The application for seed from Florida and Georgia is very significant, as only two years ago the sale of seed from these places to the West Indies was prohibited, competition being feared. The results have proved that these fears were well founded.

The President of the British Cotton Growing Association, (Sir Alfred L. Jones), has sent to Sir Daniel Morris a number of gold and

silver medals for presentation to the growers of the best cotton in the various islands. This generous gift is much appreciated, and there will be keen competition for the prizes.

Whilst giving all credit to the excellent work done by Sir Daniel Morris and his able assistants, the Association can justly claim that the establishment of this industry is due in a great measure to its efforts.

Several ginning factories have been established with the Association's assistance, and recently a mill has been erected in Barbados for crushing the seed, and if successful will be followed by others. There is a good local demand for the oil, and the seed cake is used for feeding cattle. The production of cotton bids fair to bring renewed prosperity to the West Indies, and the efforts of the Association will be amply rewarded.

BRITISH CENTRAL AFRICA.

Cotton growing was taken up enthusiastically two years ago by the European farmers in the neighbourhood of Blantyre ; unfortunately in the past two seasons the weather has been very unfavourable, and several of the plantations were a failure. In addition to the bad weather conditions, most of the planters were in total ignorance of the proper kind of land required, methods of cultivation, &c. Some were very successful, and very fine cotton from Egyptian seed has been grown. About 4,000 bales were produced last season, and much more is expected this year. The Government have sent out Mr. Samuel Simpson, an expert having a good knowledge of growing Egyptian cotton ; he has recently issued a very interesting and instructive report. He expresses his conviction that in the near future British Central Africa will produce a good crop of Egyptian cotton.

Efforts are being made through the Government to induce the natives to grow cotton, and large quantities of seed have been distributed. Difficulties of transport will have to be overcome ; the railway in course of construction will be of great assistance, and the Government will be urged to make good roads as feeders.

The Association has spent a considerable amount of money to start the industry, and firmly believes that ultimately success will be attained.

BRITISH EAST AFRICA.

It has been proved that good cotton can be grown from Egyptian seed on the coast lands and also in the neighbourhood of Lake Victoria Nyanza.

The Government is much interested in the work, and appointed over a year ago an expert from Egypt, who reports most favourably. It is confidently believed that a profitable industry will soon be established.

The Association has erected a ginnery near Mombasa, and has under consideration a scheme to greatly extend the area under cultivation, by encouraging settlers and natives to plant cotton, and by opening buying centres. A representative will be sent out, who

will superintend the buying, ginning, and shipping, and also distribute seed to planters, and in every possible way assist in the development of the industry.

RHODESIA.

In this enormous territory the experiments have proved that good cotton can be grown. Work on a large scale is about to be commenced by the Association, the British South Africa Company, and others. Here Egyptian and good stapled American cotton will be grown. About 200 bales (Egyptian) were recently sold in Liverpool at 8d. and 9d. per lb.

SOUTH AFRICA.

In Cape Colony, Natal, the Transvaal, and Orange River Colonies much interest has been created, and the Association has received samples from many planters who have grown very good cotton experimentally. Every encouragement has been given, and a large number of hand gins sent out, and also specially selected seed. In these Colonies it is a question if cotton can be produced profitably, owing to the cost of labour.

In a recent dispatch, Lord Selborne writes as follows :—

"Experiments have been conducted by the Agricultural Department (Transvaal) at several stations. Some excellent samples of American cotton have been secured, which have attracted much favourable comment in Manchester, and at the Cotton Exhibit in London. These samples have been valued at 1d. to 1½d. per pound more than samples of the American-grown cottons of the same class. There is an extensive area in the Low Veld, particularly on the Lower Eastern slopes of the Drakensberg, in which it seems probable that cotton can be grown profitably, providing the same quality of lint can be maintained, and if transport, freight, and other charges combined are not too high to leave a margin of profit. Fifty acres are under cotton on our farm this year, from which seven to ten tons of lint may be expected, sufficient, I think, to give us data to the economic possibilities of establishing the industry."

SOUDAN.

There are great possibilities in Upper Egypt and the Soudan for the growth of Egyptian cotton. The development is retarded by the scarcity of labour and want of water; both these will be remedied in time. The population is rapidly increasing, confidence has been restored, and efforts are being made to provide irrigation works fed by water from the Nile. Lord Cromer is giving the question his earnest attention, as will be seen from the report previously referred to.

WEST AFRICA.

On the West Coast of Africa we have several Colonies where cotton is indigenous, and has been grown by the natives for ages. The cotton is mostly of inferior quality, fair staple, strong but coarse, and brown in colour. It has been used locally, and woven into native cloths. The Association has set itself to encourage the natives to

grow better cotton, and in increasing quantities. With this object good seed has been largely distributed, ginneries have been erected, and buying agencies established. I will briefly describe the work in each Colony.

SIERRA LEONE.

In this Colony cotton has long been grown by the natives, but of a poor quality, and scarcely suitable for Lancashire. In order to introduce a better quality of cotton, the Association took up a large tract of land at Moyamba on the railway, and commenced experiments with various classes of seed. A large portion of the land (although selected by two experts) turned out unsuitable, and much of the planting proved a failure. However, on some plots good results have been obtained, and a large quantity of seed has been secured which should next season produce a good crop, having been to some extent acclimatised. Valuable data as to the best time for planting, &c., have been collected, and the various climatic conditions carefully noted, so that next season, profiting by the experience gained, much better results are confidently looked for.

A large ginning and baling plant was erected last year, and the Association hopes that next season sufficient cotton will be grown in the Colony to keep the machinery fully employed. The main efforts of the Association in this Colony are directed towards encouraging the natives to grow cotton from improved seed, and guaranteeing to purchase seed cotton from them. The manager is very sanguine that a very large quantity of cotton will be planted, and the District Commissioners have been instructed to do everything possible to encourage the natives. The manager will visit as many districts as possible before the planting season, and explain to the chiefs the advantage of cotton growing. The Governor (Mr. Probyn) is very anxious to introduce cotton, as he is convinced that some new product for export is necessary for the prosperity of the Colony.

Taking all things into consideration, despite the apparent failures of the past two seasons, the Association looks confidently to the future.

GOLD COAST.

For two years an experimental farm has been carried on at Labolabo, on the Volta River, by the Government of the Gold Coast, and the Association has contributed a considerable amount towards the expenses. The results have been satisfactory, and good cotton has been grown from American seed. The natives have also been encouraged to plant cotton, and the expert in charge, Mr. E. Fisher, in his latest report says :—

> "The natives are gradually taking up the growing of cotton; considerably over 2,000 acres have been planted this year in this district. On several short trips I made, I found fields planted entirely with cotton, and not, as formerly, mixed up with other field products. When a buying and ginning centre is established at Labolabo, there is no doubt that the acreage planted will be further increased."

Mr. Fisher has just returned home on leave, and expresses himself very confident that cotton growing can be successfully carried on as a native industry in the Gold Coast.

So satisfied is the Association with the prospects that arrangements have been made to take over the work hitherto done by the Government, they giving a grant towards the cost. It is intended to push matters on very energetically, hand gins and presses have been sent out, and next season a power ginnery will be erected. Representatives have been appointed to continue the plantation, and to encourage the natives to increase the growth of cotton, and assure them that all the cotton they grow will be bought at a fair price. It is confidently expected that very shortly several thousand bales of cotton will be produced in this Colony, and that the efforts of the Association will be fully justified.

SOUTHERN NIGERIA.

It is in Lagos (which has recently been incorporated with Southern Nigeria) that the greatest development has taken place. The Association started a small ginnery at Aro, Abeokuta, on the railway, about 60 miles from the coast, in 1903, the total number of bales exported in that year being 200. In the following year another ginnery was erected at Ibadan, and 2,000 bales were shipped. In 1905 this was increased to 5,000, and this year over 10,000 bales are expected.

Last year it was found necessary to erect a large ginning plant with a hydraulic press. This was put on the Moor Plantation at Ibadan, and has been kept fully occupied during the past season. The great increase in the quantity of cotton being delivered to the ginneries over last year is shown by the following figures :—

1905.	Bales.	1906.	Bales.
January	48	January	106
February	104	February	387
March	241	March	863

It will be necessary either to enlarge one of the present ginneries or erect another one before next season, and also to place small ginneries in several outlying stations.

Recently the Association has sent out an oil mill, which, if successful, will prove a source of income, and by using up the seed on the spot reduce the cost of production.

The natives of the Hinterland of Lagos are all agriculturists, and take readily to growing cotton. The plantation at Ibadan has not up to now proved very successful, but some good cotton has been grown from various American seeds. It appears that the first year's plantings are rarely satisfactory, particularly in virgin soil. The experimental plantings are being continued, so as to establish a good reliable seed farm, also to find out the proper season to plant and other information about climate, soil, &c. It is necessary to find an imported or hybrid variety that is better than the native, which is rough and poor in colour, but fair in staple and strong.

A small plantation has been started at Oyo, the centre of a large agricultural population, and cotton of good quality has been produced.

Hand gins have been sent there, and a good road is in course of construction to Ibadan, which will be suitable for motor traffic should the quantity of cotton and other products warrant this means of transport. The manager reports that cotton is coming in freely from the natives, and the prospects are very good.

In Meko, Ilesha, Iseyin, Agege, and other districts, buying centres are being established, and as communication by rail and road is improved, the operations of the Association will be greatly enlarged; the cotton grown at Meko and Agege is very superior and worth 30 to 40 points on American.

The Lagos railway is being extended upwards towards the Niger, and every effort will be made to induce the Government to push this on as rapidly as possible, and at the same time to provide roads as feeders, so that many fertile districts which are now inaccessible may be tapped.

The quality of cotton from Lagos now coming forward is better than that of last year's crop, thus showing that the natives are using better seed and taking more care in its cultivation. Most of the shipments have fetched prices ranging from the value of Middling American to 20 points on. Several lots have been sold at 25 to 40 points on, this being the quality most needed in Lancashire. One native planter has been very successful, and the Association has awarded him a prize, £10. This will no doubt be an incentive to others to grow better cotton. The Association has the control of most of the seed, and all except the best is being shipped home, pending the erection of the oil mill, thus preventing the use of poor seed.

Mr. Birtwistle, the Commercial Intelligence Officer appointed by the Government, has travelled over a great part of the Lagos Colony, and reports very favourably on the prospects—he was astonished at the quantity of cotton grown by the natives. He will no doubt urge upon the Government the necessity of transport facilities being provided as soon as possible.

In other parts of the Colony work is being energetically carried on. At Onitsha on the Niger, experiments are being continued, and although the past season has been unfavourable, much of the cotton having suffered from blight, some good parcels have been shipped home. Several varieties of American have produced good results, a good quality of native cotton has been found, and a shipment realised 20 points on. The seed from the best lots is being carefully looked after, and will be distributed for the next season's planting.

At the Uromi plantation fair results have been obtained. Representatives of the Association have travelled over very large tracts of country, encouraging the natives to grow cotton, and the prospects of the industry being taken up largely are very bright. Hand gins have been provided, and the cotton is sent to Onitsha for shipment. A few months ago a large exhibition was held at Onitsha, organised by the Government officials, and was attended by representatives of nearly every tribe in the Colony, some coming over 100 miles. The plantation and ginnery of the Association were visited by thousands, and the keenest interest was taken in the work. Large numbers returned to their homes with the determination to grow cotton, and

bring it to the ginnery. The promise of seed and a certain market for the cotton when grown was much appreciated. The people are agriculturists, and as the land is suitable for cotton, and in many parts there is a large population, the prospects for the future are very encouraging.

There is no doubt that the cotton-growing industry is now firmly established in this Colony, and the knowledge that the Association has guaranteed to purchase at a fixed price all cotton grown has given confidence, and the Association is now convinced that a very large quantity of useful cotton will be grown in the immediate future.

NORTHERN NIGERIA.

In this Protectorate there is an enormous quantity of land (larger than the whole of Texas) suitable for cotton growing, and a large population of agriculturists of a type superior to that of the natives nearer the coast. Cotton has always been grown in this territory, and there is a very large business in native cotton cloths. Various sorts of cotton are grown, and care will be taken to secure seed from the best qualities, and thus establish a good reliable type of cotton.

The Association has started operations, being convinced from the reports of its representatives that good results could be reasonably expected. A ginnery has been erected at Lokoja, on the Niger, and arrangements have been entered into with the Niger Company, whereby they will buy cotton at their various stations and deliver to the Association's ginnery. The Government will also assist in transporting the cotton, and the officials of the Government and of the Niger Company have been instructed to give every facility and to encourage the natives to plant cotton. The ginnery commenced working in January, and has been kept continually busy, turning out about 300 bales of 300lbs. each per month. In all probability the ginnery will have to be largely increased in the future. Next season a small plantation will be started to act as a seed farm, and as an object-lesson in cultivation. There is little doubt that as soon as the ntaives realise that all cotton grown will find a ready market at a fair price an enormous increase will take place. Persons who have visited the country say it is an ideal cotton land, and that the people will certainly go in for cotton growing largely, as it is the most suitable product they can grow. The Association therefore looks forward with great confidence to Northern Nigeria supplying before long a large part of Lancashire's needs.

There is one great obstacle to a rapid extension of cotton growing, and that is the want of transport. Every effort is being made to induce the Government to devote Imperial funds to provide railways and roads, and establish a good service of steamers on the Niger. This question of transport is of vital importance, and the Colony cannot be developed, nor can the British Cotton Growing Association carry its schemes to a successful issue, if this is not provided.

His Majesty's Government have recently appointed Mr. Gerald C. Dudgeon (a gentleman who has had a large agricultural experience in India, &c.), as Superintendent of Agriculture for the British West African Colonies and Protectorates. He has been travelling for

several months, and amongst other duties has visited the various cotton-growing districts and the Association's establishments. His report is expected shortly, and the Association confidently anticipates his confirmation of the favourable opinion formed of the prospects of cotton growing in West Africa.

AUSTRALIA.

A very good quality of cotton can be grown in Queensland, and in the Northern Territories of South Australia. It is doubtful, however, if it can be profitably grown owing to the cost of labour. The Agricultural Department is taking a keen interest, and is very anxious to introduce cotton as a permanent industry, and every effort will be made to that end.

GENERAL.

In Ceylon, Cyprus, British Guiana, and many other places cotton is being grown in small quantities, and the Association is giving assistance.

The Association is in communication with almost every part of the Empire, and owing to its efforts attention has been drawn to the great advantages to be derived from cotton growing. The successes already achieved have encouraged inquiries with regard to other products, and great developments may be expected which will result in mutual benefit to the mother country and the Colonies. The recent exhibitions of Empire-grown cotton held at the Imperial Institute, London, Manchester, Liverpool, and Oldham were object-lessons, and created great surprise amongst the many thousands who visited them. Samples of cotton from all parts of the Empire of various qualities were shown, and the most sceptical visitor was convinced that there is great promise of a successful issue to the work of the Association.

From this brief summary of the work already accomplished, it will be seen that it has been proved that cotton of all grades can be grown within the British Empire. Many disappointments have been met with, but much experience has been gained, and the Association, encouraged by the successes, will persevere until the industry is placed on a sound basis in those Colonies most suited to the growth of cotton. It is not only necessary to grow cotton, but to produce it at such a price that it may be delivered in England to yield a profit to all concerned. The Association is sanguine that this can be done, and firmly believes that the time is not far distant when a sufficient supply will be obtained to render the cotton trade of England in a great measure independent of America for its raw material.

Special attention is being paid to the preparation and baling of the cotton, and the bales marked B.C.G.A. compare very favourably with those coming from America.

The nations of Europe are all looking to the development of their Colonies, and the Cotton Growing Associations are taking their share in this great work. If by their united efforts millions of bales can be produced (and I see no reason why this should not be accomplished) what an impetus will be given to the trade between the Countries and

their Colonies. The possibilities are immense, and worth all the hard work and self-sacrifice that will be necessary to ensure success. In conclusion, I claim that the British Cotton Growing Association has justified its existence. It is engaged in a truly Imperial work, and is steadily pushing forward, undaunted by failures here and there, towards the ultimate realisation of the most sanguine expectations.

KOMMERZIENRAT EMIL STARK (Germany) then read his paper on "Cotton Growing in the German Colonies":—

The Secretary of the British Cotton Growing Association, Mr. John C. Atkins, has already convincingly shown the necessity for increasing the sources of cotton supply. He has further pointed out that in this object the British and Continental cotton interests are entirely one, they have the same ideal before them, that of opening new sources of supply in their colonies, and they hope through united efforts to attain the desired success. The speech of the Prime Minister of England, which country possesses the oldest and largest cotton spinning and manufacturing industry in the world, has for us cotton spinners great significance. A few weeks ago, at the reception of the deputation of the British Cotton Growing Association, the United Chambers of Commerce, and the Cotton Industrial Workers, he declared to the members of the deputation *that he had never before received a deputation of such importance, so far-reaching in its aims, and so eminent,* and which had in view the providing of a sure supply of raw material for the cotton industry of Great Britain.

This assertion, out of the mouth of one so high and competent, absolves me from the necessity of adding that the promotion of the cotton supply for the German industry is also a vital question, and that we must work in union with our other colleagues, so that the material for the clothing of our ever-increasing population will be secured for the future.

Like our friends in England and France, we place our greatest hopes in the development of cotton cultivation in Africa. It is Africa which, crossed by the Equator, appears to be the most suitable land for cotton planting, on account of its geographical position, the fruitfulness of its soil, its dense population, and the fact that the cotton plant is indigenous.

We have, with other nations, the same obstacles to fight: means of transport are few and consequently dear, cattle disease is common, and the natives are extremely indolent.

We believe, however, that we can overcome these difficulties, at a not far distant date, by patiently training the natives to cultivate cotton, by the introduction of the plough, and by better and more productive seed.

According to the reckoning of acknowledged authorities in the United States, the cost of production since the end of the last century has risen about 3½ cents per pound. This is caused by advances in labourers' wages and ground rents.

From 1890 to 1900 5 to 6 cents per pound was thought a favourable price for the farmer, to-day it is said that 9 cents would hardly give him any profit.

We have now come to the period when, with the cheap virgin soil of the European colonies in Africa, and by attending to the training of the powerful negro element (which in the United States is the largest portion of the cotton-growing population), we may hope to enter into successful and peaceful competition with American cotton producers, or rather to successfully supplement their efforts.

England, France, and Germany, with their costly plantations and experiments, do not expect immediate success ; they build for future generations. Their project is the gradual creation of a new great source for the most important textile fibre in the world, and the hope of raising the black races at the same time. We believe that nothing could be more beneficial, and have a better effect on the training of the natives, than the cultivation of cotton and the payment of satisfactory wages to the labourer. One of England's greatest glories is the achievement of freeing and raising the negro race.

England has by the abnegation of important special interests brought about the freeing of the negro slaves, and with great struggles promoted it also in other States. She will only be true to her tradition if, through promoting the cotton trade in Nigeria, on the Zambesi, and in her other African territories, she assures this mighty industry for the future, and at the same time seeks to further the interests of the negro race. Germany has followed these endeavours with warmest sympathy. We are very pleased that in this great cause English, French, and Germans compete in an eager and friendly race toward the same goal.

There can be no doubt that every development of cotton growing in our colonies increases their worth, adds to the wealth of the nation, and that every increased export is almost regularly followed by a greater import of manufactured goods.

The German " Kolonial Wirtschaftliche Komitee " (Committee for Colonial Enterprise) extends its operations over Togo, German East Africa, Cameroon, and part of German South West Africa. Existing organisations for cotton growing as well as the cotton schools will be assisted in every way. The aim is to induce the natives to grow cotton in the best way by the distribution of good seed, by instituting establishments for ginning and pressing, and by guaranteeing a sufficient price.

We wish to create a popular cotton cultivation. An important step to be gained in this long and troublesome but promising Colonial work is the substitution of the plough for the hoe used by the native.

Further, in these great districts the cotton bye-products (oil, linters) must be brought to good account, and the cotton plant to greater perfection by a judicious selection and mixing of seed.

The efforts of the committee to foster colonial cotton growing, although attended by tremendous difficulties, have always been rewarded by success.

The export of raw cotton from Togo amounted to :—

1902	.. ..	14,455 kilo
1903	.. ..	32,100 ,,
1904	.. ..	108,169 ,,
1905	.. ..	127,160 ,,

There is a distinct and constant improvement in the quality of Togo cotton. This is now being sold at 3 and even 6 pfennige above American middling, whereas it was formerly no better than the neighbouring Dahomey and Lagos qualities.

In German East Africa, as was to be expected, the insurrection interfered with the harvest to a great extent. It is nevertheless highly pleasing that the quality of the German East African cotton proves that the cotton spinners of the world may here find the urgently-needed supplement to the supply of the necessary *raw material suitable for spinning the finest counts of yarn.* The streams of German East Africa, the British Zambesi, &c., in their fertilising powers seem to resemble Father Nile. Through regular floods the new fertile alluvial ground yields cotton with a staple 40 mm. long, and it has the peculiar gold-brown colour of the Egyptian product. The German scientific plantings and seed-mixing experiments have certainly brought about this successful improvement in the quality, quite as much in West as in East Africa. The friendly working together of the nations in this matter cannot be better illustrated than by the fact that Germany has supplied her French neighbours in Dahomey with 500 kilos German seed for planting, and her English friends in Natal with East African seed, in the conviction that the promotion of cotton culture and improvement in the quality not only adds to her own interests but to the welfare of mankind.

In German South-West Africa the outlook of the Otavia railway district, and of Ovambo land which is watered by the Kunene, is very hopeful. Cotton experiments in Ovambo land, results of which I had the honour to prove, yielded such an extraordinarily good quality that one doubted if one had not to deal with original Sea Island cotton.

Although the German Cotton-growing Association is not directly concerned, still I must mention the German Levant Cotton-growing Society in Adana and Mersina. Their activity in spite of limited means has been rewarded by surprising success. This society has done nearly as much within later years for the raising of cotton in the old land of cotton culture, Asia Minor, as the European planting concerns in Africa. From these districts the export has not only risen in quantity, but there has been a great improvement in the staple. The European buyers are safe from falsifications, and there is also a rational production of the secondary products, which is admirable, taking its small means into consideration. At the same time the people have been systematically delivered from the power of the usurer, and rational cultivation has been achieved which formerly, on account of the mortgage on the outstanding harvest, was of no value to the farmer.

The German Levant Cotton Society is founded by German shareholders, weavers, and spinners. It has positively no narrow national aims, it endeavours to meet a universal need, viz., the propagation and improvement of the cotton supply of the world.

M. A. ESNAULT-PELTERIE (France) read the following paper on "Cotton Growing in the French Colonies" :—

ORIGIN OF THE COLONIAL COTTON-GROWING MOVEMENT.—As we are all well aware, the United States has to a great extent the monopoly of the production of cotton; and one is really astounded, when reflecting upon it, to think that the danger attending a monopoly of this kind should not have been realised sooner by great consumers of this raw material, such as the European nations.

The bold manœuvres of shameless speculators, facilitated by two successive years of poor crops, seem to have been needed to open the eyes of all parties interested to the dangers of such a situation.

This has given rise to the almost simultaneous creation in all countries possessing Colonies, of associations having for their object the development of the production of cotton.

HISTORICAL FACTS.—The French Colonial Cotton Association (l'Association Cotonnière Coloniale) was founded in January, 1903, by the General Syndicate of the French Cotton Industry (le Syndicat Général de l'Industrie Cotonnière Française). It has remained almost exclusively under the auspices of this industry, in spite of the efforts made by its committee to give it a more general national character.

However, the Colonial administration saw very clearly the great importance attaching to this undertaking for the development of the prosperity of the French Colonies; and powerful moral support has been given to it since its origin by M. Doumergue, sometime Colonial Minister; by the Governor-General of West Africa, M. Roume; and by General Gallieni, Governor-General of Madagascar.

The ex-President of the Republic, M. Loubet, took the Colonial Cotton Association under his high patronage, and the Ministers of the Colonies, of Commerce, and of Foreign Affairs, as well as numerous Members of Parliament and High Functionaries, accepted positions as Honorary Presidents.

FINANCIAL RESOURCES.—The Colonial Cotton Association is maintained by yearly subscriptions, the resources at its disposal are therefore almost guaranteed for a certain number of years to come.

Up to the present time small subsidies have been granted to it by the Colonial Governments.

The French Parliament, following this example, has recently expressed its desire that the Government should liberally subsidise our Association, but to what extent has not yet been settled.

PLAN OF ACTION.—When we endeavoured to obtain information as to the course we ought to adopt, the most contradictory information was furnished to us (in good faith, we are quite convinced) by those who had been on the spot, but who had viewed affairs from different standpoints. We could not under these conditions form a correct opinion, and consequently the greatest prudence was required on our part before setting to work on a large scale in entirely new countries.

Our plan of action was therefore, from the outset, to gain knowledge by experimenting, and to await results with patience, until the time when, being quite certain of the course to adopt, and of the

result to which we might look forward, we should decide to prepare the way for the real cultivation itself.

RESULTS OBTAINED.—The results obtained, beginning with the first experiments, were sufficiently encouraging to inspire us with patience, for from that time we knew that success was only a question of time and perseverance. We were therefore quite sure that we must not run the risk of compromising our victory by proceeding to experiments or plantings which might be incompletely and, above all, too hurriedly prepared; and we are more than ever resolved not to depart from this line of conduct.

The number of experimental sowings made in the different Colonies by functionaries, officers, or colonists, is considerable, and we receive samples of cotton from many different sources.

Interest in the cultivation of cotton is therefore aroused in all our Colonies, and the requests for information which are continually pouring into the offices of the Association prove that our action and our influence are to-day making themselves felt throughout the world.

At GUADELOUPE serious attempts have been made to carry on the cultivation of cotton to a fairly-large extent, and the samples we have received from that island are very encouraging.

In INDO-CHINA very interesting experiments are being made to increase and improve the production which is already six to eight hundred tons, of which the greater part is for China and Japan.

After the very careful study we have made of the work undertaken to develop the cultivation of cotton in all parts of the world, we are firmly convinced that outside America, Africa is really the ground to be preferred for the cotton we are striving to obtain.

In ALGERIA cotton growing has been resumed at our instigation, and we have reason to hope that it will give encouraging results, the first obtained with Egyptian seed, having proved that this kind of cotton can be grown there in a satisfactory manner.

DAHOMEY, MADAGASCAR, SENEGAL, and FRENCH SOUDAN will be able to furnish us with considerable quantities of cotton when the navigable ways have been improved, and when the railways, which are at present being constructed, are completed.

As soon as this work has been accomplished, centres of buying and ginning must be created much more extensive than those experimentally established by us. These developments, however, will not be within the domain of the Colonial Cotton Association. They will have to be undertaken by the industrial and commercial enterprises which will not fail to be established within a short space of time.

Other African Colonies, such as the IVORY COAST, GUINEA (in the region of Fouta-Djalon), and SINE SALOUM will also become extremely valuable as cotton-growing centres, when more rapid means of transport, now in the course of construction, give access to the fields of production.

Astonishment is sometimes expressed at the smallness of the results obtained; but it should be remembered that so far we have had but limited time in which to deal with a subject of such importance

and necessarily of such slow development as cotton growing in new countries.

During the first year (1903), as a matter of fact, we could only procure seed and buy native cotton, because for growing experiments we had to make the best use of existing conditions.

We discovered in that year :—

(1) That in Africa cotton grows naturally, and is adapted for cultivation almost in all parts.

(2) That whilst this cotton is suitable for spinning, it is inferior to the good American grades, and gives a proportion of fibre of 4 to 5 per cent. below what is obtained in America.

Beginning with this first year (1903), with the help of the Colonial Administration, we distributed, in small quantities, seed of all kinds in numerous villages lying at fairly great distances from each other, taking care to give only one kind of seed to each village.

In this manner we were able to ascertain :

(1) Whether the native would be willing to cultivate seed with which he was not familiar.

(2) What kinds would thrive best.

(3) Which countries were best suited for cotton cultivation.

In the second year (1904) we found that the results were completely satisfactory.

It is true that certain natives neglected to make use of our seed, nevertheless, the number of those who did use it was large enough to prove that American seed would thrive over vast areas in the Soudan, and would produce a fibre there as fine as that grown from the same seed in the Southern States.

This cotton attracted the admiration of the women of the country, who were accustomed to spin native cotton of an inferior quality, and our seed and our advice were from that time accepted by a greater number of growers.

One experiment of this nature was not sufficient to convince us definitely ; we therefore united our efforts with those of the Colonial Administration for the purpose of handling larger quantities and obtaining trade samples.

In 1905, this new trial produced for us several lots of 1,000 to 1,500 kilos. each, which gave satisfactory results both in spinning and weaving.

Under these conditions we considered that the first plan we adopted had succeeded, and that it was time to think of a new organisation capable of dealing with larger quantities and of stimulating the industrial and commercial movement.

Unfortunately we were not able, at the beginning of this third year, to work on as large a scale as we would have liked in preparation for the next season (1906). The reason for this was that the results of 1905 were ascertained too late to enable us to proceed with a new organisation capable of dealing with the new situation.

Nevertheless, thanks to the help of M. Merlaud-Ponty, Governor of Upper Senegal and Niger, and of M. Liotard, Governor of Dahomey, very perceptible progress has been made, and we shall have this year some hundreds of bales of cotton.

CONCLUSION.—Here, concisely set forth, is the line of conduct we traced, in a general way, for the French Colonial Cotton Association. We are of opinion that we have thus obtained a maximum of results with a minimum of expense. Before attempting experiments on a large scale we were desirous of acquiring, both for ourselves and our staff, a thorough knowledge of the best methods to be adopted in countries in which cotton growing as an industry was undeveloped, and though we might be able to benefit from the knowledge of what has and is being done in America, in India, and even in Turkestan, we could not be sure that the recognised methods of cotton growing would be accepted by untried populations.

We thought, and still think, that practical experience ought to be our guide.

If I have taken West Africa as an example, it is because in that region we made our first attempt; but the same principle is adopted in the other Colonies—Madagascar, Indo-China, Algeria.

The movement is now in full swing, and all our Colonies are applying to us for information, in order to undertake cotton growing, which, I may add, is now proceeding most satisfactorily.

I have endeavoured to show that we have proceeded with the greatest prudence. Up to the present date, our endeavours have been directed, not so much to the production of large quantities of cotton, as to discover the assured means of attaining that end; and to supply our spinners, within a reasonable time, with a product of a quality suited to their needs.

WORKING.—We have now to touch upon the second phase of our undertaking, *i.e.*, that which deals with the transformation from the experimental stage to that of a strong commercial movement.

This part presents great difficulties, as on the one hand the resources of our association are not sufficient to deal with large productions of raw cotton, whilst on the other hand these productions are not yet extensive enough to offer satisfactory inducements for the creation of commercial undertakings specially organised for the purpose.

Fortunately, the business firms already established in the country seem prepared, after some hesitation, to enter into the movement, and we have every reason to hope that they will combine with us in our efforts to attain rapid success.

HELP FROM THE COLONIAL ADMINISTRATION.—We are firmly convinced that we shall succeed, thanks to the closer union each year between the Colonial Administration and ourselves.

I emphasize the importance of this collaboration, which is likely to produce the best results, and which is quite new to us.

A kind of antagonism instead of mutual helpfulness used to exist in former times between these two forces of official and private initiative. With good-will on both sides, the difficulty of coming to an understanding has been surmounted.

THE FUTURE.—In spite of the first successes which I have just pointed out, there still remains much to be done, for although the

native is at present producing cotton which gives satisfaction to our industry both as regards quality and price, a fact which ought not to be overlooked is that the efforts we are making in all parts to increase the supply will have a counter-effect on prices; and we must therefore prepare growers to meet this eventuality by getting them to improve, little by little, their means of production.

It was because this prospect had not been faced, at the time of the War of the Secession, that cotton growing which had been hastily entered upon in the greater part of the French Colonies as well as in the Colonies of other countries had to be given up.

If we wish to guard against disappointment in the future, we must begin by basing our calculations not on present prices but on normal prices. We have adopted, as a basis, a maximum price of 100 fr. per 100 kilos., for the classification "middling American."

We must endeavour to instruct both natives and colonists, and in order to succeed in this we must create model plantations, where object-lessons will be given them.

Indeed, I think this is the conclusion at which all associations like ours have arrived. There is no doubt that this course will produce the best results in the near future, and we shall see our various Colonies taking a prominent part in the beneficent work of adding largely to the supply of the raw material necessary for carrying on the world's cotton trade.

It is intolerable that the market of a material of primary necessity, such as cotton is, should be at the mercy of a few speculators or ring-jobbers, who trouble their heads very little about the obstacles they put in the way of the greatest trade of the world.

It is in order to remedy this deplorable situation that we have combined, and so it is that out of the excess of evil good often comes.

Are we not indeed indebted to this baneful cause for the circumstance that we have so large an assembly of members of our great industry representing most of the nations interested in the development of the growth of cotton?

Each Congress helps to draw still closer the bonds of our friendship; and it is to be desired that these friendly studies of matters which concern us all alike should multiply. With means of communication becoming every day easier, that is rendered possible.

Thus, whilst pursuing one aim of common interest, we learn to know each other better, and we contribute, by that alone, towards attaining a higher object—that of reciprocal confidence between nations, which will remove all pretext for hostilities no longer worthy of our modern civilisation.

Senor Don E. Calvet (Spain) read the following paper on "Cotton Growing in Spain":—

The high level of cotton prices during the season of 1903–4, and the insufficient supply of the raw material, were the principal reasons for calling together the first International Congress of Cotton Spinners and Manufacturers, in Zürich, in the month of June, 1904.

At that Congress the delegates were confronted with the difficulties created by the enormous increase in the demand for manufactured goods, coupled with the altogether inadequate extensions in cotton cultivation. It is felt that unless this disparity is vigorously dealt with, it is bound to strengthen the fears of a severe cotton famine in the future.

The problem is considerably aggravated by the fact that, in our opinion, the acreage which can be used for cotton growing in America is limited, and although the interest of financial brokers is to create a high level of cotton prices, the fact is ignored that these high prices may make business impossible for the spinner and manufacturer. There consequently arises the necessity for the cotton industry seeking new sources of supply, and the action of the British Cotton Growing Association in this direction has met with unanimous approval. The example of that association has been emulated by Belgium, France, Germany, Italy, and Portugal, where similar associations have been founded for the purpose of cultivating cotton in their respective colonies. These associations are not only creating in their colonies a new source of cotton supply, but by causing an influx of emigrants and the consequent civilising of vast territories are opening up new outlets for their manufactured goods, thus producing a source of wealth and income which seems inexhaustible. The Spanish cotton spinners and manufacturers have felt the stimulus of this action on the part of the countries named, and have endeavoured to do something towards the advancement of cotton culture. They have selected for cotton growing some of the regions of South Spain, where soil and temperature seem favourable, and where cotton has been cultivated in ancient times with complete success.

According to the unanimous opinion of historians, cotton was introduced into Spain by the Arabs, who are proved to have been engaged in its cultivation in the eighth century on the plains of Valencia, and the cotton thus grown was afterwards manufactured in Cordova, Sevilla, and Granada, and, later on, in Catalonia. In this latter province, in the thirteenth century, the cotton industry developed to an enormous extent, receiving its raw material, as in the times of the Arabs, from the southern parts of the Ibernian Peninsula. The textile industries grew slowly, but constantly, though this was not the case with cotton cultivation, which decreased after the expulsion of the Moors.

Thus it came about that in the eighteenth century the Catalonians made great efforts to maintain cotton cultivation in Andalusia, in order to have a sufficient supply of raw material for their industry. As a result of their efforts cotton growing has been encouraged in Andalusia, with the result that during the American War of Secession they were enabled to pick a crop of 8,000 to 10,000 bales grown on the Plains of Motril.

After this, in spite of the protective duties of the Spanish Government, it was found that the cotton-growing industry could not maintain itself, and there consequently came a period of decline in its cultivation. This decline may be accounted for in several ways, viz., by the competition of American-grown cotton, and by the fact that

the Spanish farmers insisted on the old-fashioned way of cultivating the fields and plains of Andalusia. These farmers were not possessed of the intelligence or energy to bring about the radical changes in the process of cultivation which had become necessary for the purpose of keeping cultivation up to its proper standard. They despised agricultural and ginning machinery, and used the worst packing possible. Another reason, too, was the fact that the cultivation of the sugar cane was so easily substituted for cotton. It is proved by documents in the possession of the " Fomento del Trabajo Nacional " that partly through not gathering the cotton in proper time, and partly through the careless way in which the cotton was warehoused, the fibre became subject to fermentation and naturally suffered; thus, besides the drawback of inefficiency on the part of the cotton planter there was the degeneration of the plant at Motril, which in olden times had always been excellent.

There can be no doubt as to the possibilities of cotton growing in the Andalusian district, and we are of opinion that it is possible to extend its area. Cotton grows and develops in those countries in which the temperature does not go below 17° centigrade during the period of the growth of the plant, and this condition obtains in the southern zone of Spain, Valencia, Murcia, and Catalonia. It might be added that these special conditions extend still further into this zone of cotton cultivation, the limits of which may be described as 45° northern latitude, as is proved by the existence of the cotton plant in Asia as far as Astrakan, in China and Japan, as well as in Turkestan, Crimea, and North America.

As these suitable climatic conditions obtain in a great part of Spanish territory, which is further proved by the following table, it will be seen that there are great facilities for cotton cultivation :—

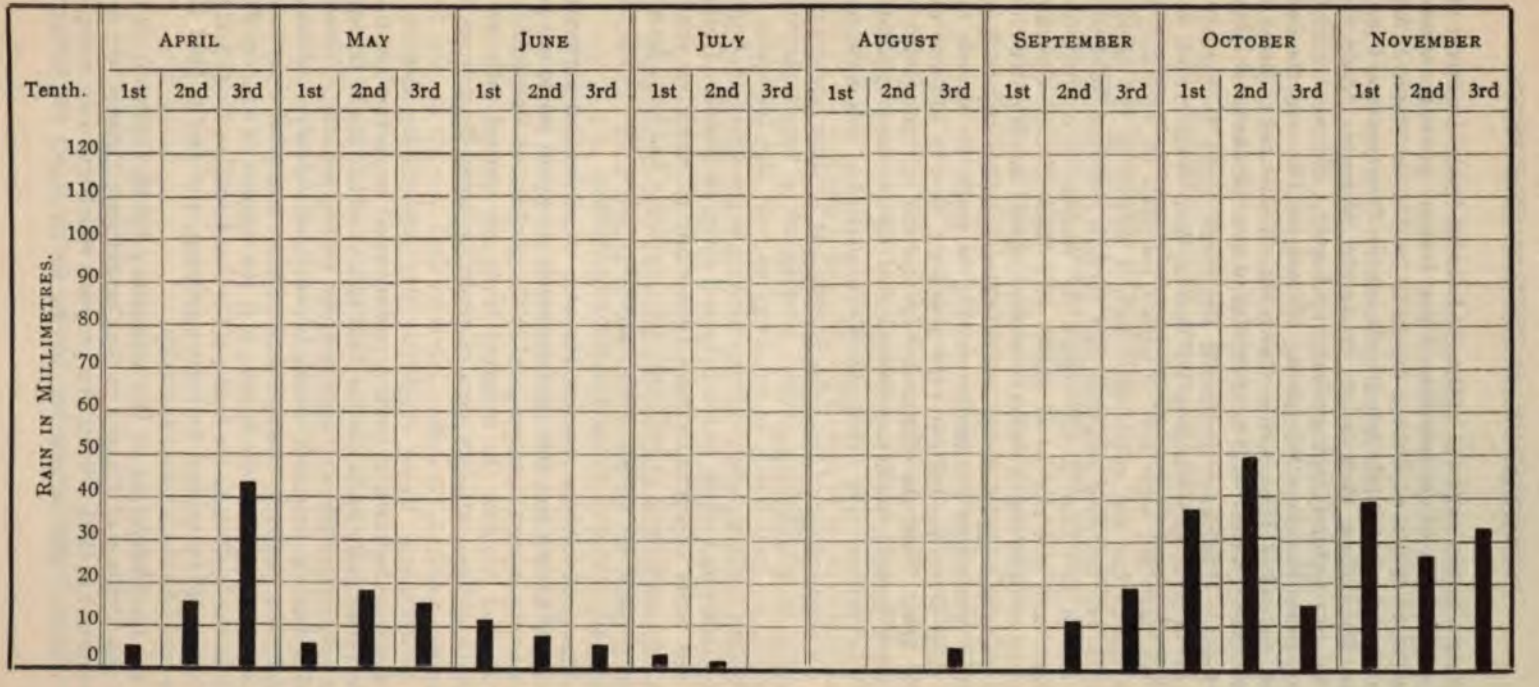
Average minimum temperature during the winter months in the cotton district of the United States of America and Jerez de la Frontera (Spain).

	December.	January.	February.
U.S.A. Northern District ..	− 3·4 to 1·4	− 7·4 to 1·7	− 5·4 to 4·5
„ Central „ ..	3·9 to 7·1	3·4 to 6·8	4·1 to 7·9
„ Southern „ ..	6·9 to 11·9	5·0 to 10·5	8·2 to 9·2
Jerez de la Frontera (Andalusia)	1·4 to 7·9	0·9 to 6·4	2·5 to 9·1

Average temperature in the open during the period of the vegetation of the cotton plant :—

	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.
U.S.A. Northern District ..	16·1	20·6	24·8	26·4	25·2	21·8	16·5	9·8
„ Central „ ..	18·4	21·5	25·5	27·2	26·4	23·8	18·4	13·1
„ Southern „ ..	20·9	24·3	27·4	28·5	27·7	25·7	21·3	16·4
Jerez de la Frontera (Andalusia)	17·5	18·6	22·3	26·1	26·8	23·7	20·1	15·4

AVERAGE RAINFALL IN JEREZ DE LA FRONTERA.



NOTE: These dates correspond to the five years from 1899 to 1903.

It is certain that the district of South Spain possesses all the necessary temperature conditions for cotton growing when it is remembered that the northern region of the United States of America includes the districts of Atlanta, Charlotte, Chattanooga, Paso, Fort Davis, Fort Elliot, Fort Smith, Knoxville, Memphis, Nashville, &c. The Central region comprises Auburn, Augusta, Charleston, Hatteras, Montgomery, Palestine, Wicksburg, Wilmington, &c., and the Southern region comprises Brownsville, Galveston, Indianapolis, Jacksonville, Mobile, New Orleans, Rio Grande, Savannah, San Antonio, &c.

Further, the same favourable conditions apply as regards light, a factor of great importance in the development of the cotton plant.

We have not been able to obtain statistics on sunshine, as the Government has not established such a service in the agricultural districts, but one may conclude that there is sufficient light from the well-known fact that in this region the summer is characterised by drought, and the sky never shows any thick clouds, therefore the quantity of light which exists is without doubt much greater than in those parts of North America where cotton is grown with such success. Equally favourable statements cannot be made as regards rainfall. The rains in spring are not very abundant, and in summer there is hardly any. Thus the plants dry up and die in consequence of the persistent drought, which is quite typical of this southern region of Spain.

The table on page 121 shows the correctness of this statement.

An examination of this table is sufficient to show how great is the difficulty in establishing cotton growing on a remunerative basis, especially on land which is not irrigated. At the beginning of the nineteenth century, when cotton cultivation prospered in Andalusia, it was cultivated solely in the irrigated plains of Motril. During the last few years experiments have been made to which we shall refer later, and from these experiments the conclusion has been drawn that cotton cannot be grown advantageously unless the plants can be occasionally watered during the summer months.

This circumstance restricts the area of cultivation materially, as it is a well-known fact that, unfortunately, in Spain we do not possess irrigation to any great extent, and in the gardens of Valencia, Jatiba, Murcia, and Almeria the irrigated lands are covered with trees and vegetables, from which a greater profit is made than from cotton growing.

Nevertheless, there exist in the Andalusian district some thousands of hectares of land at present used as pasture land for the cattle (principally bulls for the bull fights) which might be irrigated with very little difficulty and used for cotton growing. The results on this land if irrigated would be very satisfactory. Although we are not in a position, through lack of time and preliminary studies, to give even approximate figures, it is the opinion of experts that the whole of the land along the banks of the Guadalquivir, from Andujar to Huelva, could be utilised for cotton growing, and that at least 150,000 bales could be there raised annually.

On the instigation of His Excellency Sr. D. Guillernio de Osma, who was Minister of Finance in the Conservative Cabinet, the Spanish Government in 1904 submitted a proposal which was duly accepted by the " Cortes " and became law, having for its object the furthering of

studies and experiments in cotton growing. By this law it is provided that no taxes are to be paid for the first three years on lands which are used for cotton growing, and for a further period of 10 years following the three years' exemption, these tracts of land would not be required to pay a higher tax than was paid on them before cotton growing was started. This law further establishes money rewards by Government of 50,000 pesetas for the first year, 100,000 pesetas for the second year, and 250,000 pesetas for the third year, which are to be paid to the farmer or farmers who have grown the largest quantity and best quality of cotton. In making these awards the judges selected were the presidents of certain agricultural, industrial, and commercial boards, of our "Fomemto del Trabajo Nacional," Barcelona, and of the Consulting Agriculture Union.

The Royal Decree and the rules for carrying this law into effect were published after the 31st of January, 1906, so that those who cultivate cotton during this year will be the first who will be able to claim the privileges granted by this law to cotton planters.

An opinion exceedingly favourable to cotton growing has been created by publications in the Press, dealing with the high prices of cotton, the reports of the International Congresses, the money grants of the Spanish Government, and the experiments which these grants have enabled to be carried out by nearly every farmer and by the Agricultural Colleges, and it is expected that the opinion thus created will assist in the carrying out of the trials, and in establishing afresh the cultivation of cotton, which had been allowed to die out.

We give below the results of some small trials undertaken in official establishments. These are interesting, both from an agricultural and economic point of view, though the latter is, no doubt, the most important in arriving at a solution of the question as to whether or not cotton growing in the South of Spain is possible.

The experiments have been carried out both on irrigated and non-irrigated land. With regard to the cultivation on the latter we have already said that in spite of the resistance of some cotton varieties to the drought the cultivation on non-irrigated land is not possible in Spain on account of the lack of rain and the severity of the south winds, which are very dry, thus producing a great deal of evaporation, which soon dries up the plant.

There are, nevertheless, a few exceptions where the land is situated close to the sea, thus receiving sufficient humidity to sustain the plant during the period of drought.

One of the stations or agricultural farms where the most exhaustive experiments (although on a small scale) were undertaken, is that of Jerez de la Frontera. We therefore give its experiences both as regards irrigated and non-irrigated land. For the experiments on non-irrigated land six ares of the following chemical composition were taken :—

	Per cent.
Fine sand	87·66
Fine clay	3·32
Fine lime	3·35
Organic matter.....	0·59
Dampness and loss	5·08
	100·00

CHEMICAL ANALYSIS.

In 1,000 parts of dried land.

	Grammes
Nitrogen	0·754
Phosphoric acid	1·070
Potash	2·900
Lime	1·876
Organic matter	5·920

This land was twice suitably prepared, and the following mixture of manure was given :—

	Kilos.
Stable manure	600
Superphosphate of lime	12
Chlorate of potash	12
Nitrate of soda	12

The nitrate of soda was introduced at the end of May. The proportion of the dung mixture per hectare is as follows :—

	Kilos.
Stable manure	10,000
Superphosphate of lime	200
Chlorate of potash	200
Nitrate of soda	200

The sowing took place on the 3rd and 4th April, the seeds having been placed in water for twenty-four hours before sowing in order to hasten germination. The quality sown was Upland, and the distance from plant to plant was 0·60 metre, thus 16,666 plants were on the hectare.

The soil was loosened in May, June, and July, and the crop began on the 26th August, and finished on the 10th November. We annex a table in order to give some idea as to the various stages of growth :—

Stages of Growth.	Dates.	Number of Days.	The Total of Average Temperatures in the Open.
Germination	From 3rd April to 10th April	8	162°
Buds showing	From 11th April to 6th July	87	1,842°
Opening of the first capsules	From 7th July to 25th August	50	1,354°
Crop finished	From 26th August to 10th Nov.	77	1,709°
	Total	222	5,067°

The general growth of the plant was good, the plants reaching an average height of one metre, and an average width of 0·80 metre.

In order to appreciate more fully the economic results from each plant, bunches of capsules of different sizes were classified into various categories according to their advance, so as to obtain the average

composition of each capsule, and to establish from this an approximate valuation of the production. The results obtained were as follows :—

Description of the Bunches.	Weight of Fibre in Grammes.	Weight of Seed in Grammes.	Total Weight of Capsule in Grammes.
10 small capsules	15·50	31	46·50
10 medium ,, ...	17·50	35	52·50
10 large ,, ...	20·50	41	61·50
10 extra large ,, ...	28·00	54	82·00
Average proceeds for 10 capsules..	20·37	40·25	60·62
Average proceeds per capsule	2·04	4·02	6·06

The production per hectare works out to

	Kilos.
Cotton	577
Seed	1,154
	1,731

These results may be looked upon as being very satisfactory as compared with the average result obtained during late years in the United States of America, which is as follows :—

	Kilogrammes per Hectare.
North Carolina	201
South Carolina	224
Georgia	230
Alabama	232
Mississippi	232
Louisiana	480
Texas	428
Arkansas	253
Tennessee	255
Other States	284

The following are the accounts per hectare of the farm at Jerez de la Frontera :—

Preparatory Work.	Pesetas.
Three ploughs (two oxen each)	30·00
Three harrows	6·00
Manure	228·00
Five days' work for sowing.....	10·00
One day's work re-sowing.....	2·00
Cost of seed	14·00
Ten days' work for the ridges.....	20·00
Twenty days' work for digging.....	50·00
Thirteen days' work for loosening the soil and picking the crop	107·50
General expenses	78·25
Total expenditure per hectare.....	545·75

Income.	Pesetas.
570 kilos cotton at 150 pesetas per 100 kls.....	855·00
1,154 kilos seed at 89 pesetas per 1,000 kls.....	102·70
Total income per hectare	957·70

Difference in favour of Income, 411·95 Pesetas.

In connection with these accounts, the farmer at Jerez de la Frontera states that at least 20 per cent. would have to be deducted from the income in the case of larger plantations where it would be impossible to bestow as much attention on the plants as has been done there, and it should be added that the district of Jerez, not being far from the sea, receives a great deal of humidity or dew which sustains the plants. This, of course, is not the case in the districts of the interior.

According to details supplied by the farmer at Jerez the number of days on which there was an abundance of dew is as follows :—

Months.	Days of Dew.
April	18
May	14
June	14
July	23
August	20
September	22
October	27
November	24
Total	162

The cultivation on irrigated land was undertaken on soil whose chemical substance is similar to that of the non-irrigated land. The following chemical analysis being in 1,000 parts of non-irrigated land :—

Nitrogen	0·622
Phosphoric acid	0·920
Potash	0·875
Lime	44·800
Organic matter	1·000

The quantity of manure per hectare was :—

	Kilos.
Dung	40,000
Superphosphate	400
Chlorate of potash	150
Nitrate of soda	150

The latter was given when the plant had already developed. The qualities experimented upon were Georgia, Sea Island, Louisiana, Upland, Mit Afifi, and Yannovitch, and the distance from plant to plant was 0·60 m., and from ridge to ridge 1·20 m.

Irrigation has been used three times, besides the preparation of the seed, and was given on the 2nd June, 25th June, and 16th July,

during which times the buds showed mostly in the various kinds. The principal stages can be seen from the following table :—

Name and Variety Sown.	Dates on which took place				Days required for		
	Sowing.	Germination.	Flowering.	Fructification.	Germination.	Flowering.	Fructification.
	May	May	June	Sept.			
Upland	6	14	16	5	8	71	122
Mit Afifi	6	13	22	28	7	77	145
Yannovitch	6	13	24	28	7	79	145
Georgia	6	14	19	28	8	74	145
Sea Island	6	14	25	28	8	80	145
Louisiana	6	14	16	5	8	71	122

The average composition of the capsule is :—

Variety of Cotton.	Weight of Capsule. Grammes.	Weight of Fibre. Grammes.	Weight of Seed. Grammes.	Relation Between Fibre and Grain.
Upland	6·64	2·21	4·43	0·50
Yannovitch	3·00	1·00	2·00	0·50
Georgia	2·81	0·70	2·11	0·33
Mit Afifi	3·00	1·00	2·00	0·50
Sea Island	2·77	0·79	1·98	0·40
Louisiana	6·00	2·00	4·00	0·50

The quantity of cotton gathered is :—

Variety of Cotton.	Production of Fibre per Hectare. Kilos.	Price per Kilo. Pesetas.	Total Value of Fibre. Pesetas.	Production of Seed per Hectare. Kilos.	Price per 1,000 Kilos. Pesetas.	Total Value of Seed. Pesetas.	Total Production per Hectare Pesetas.
Upland	535	1·50	802·50	1·070	89·00	95·24	897·74
Yannovitch ..	486	1·40	680·40	972	89·00	86·50	766·90
Georgia	232	1·40	324·80	765	89·00	68·08	392·88
Mit Afifi	515	1·40	721·00	1·030	89·00	91·67	812·67
Sea Island ..	304	2·50	760·00	960	89·00	85·44	845·44
Louisiana ..	441	1·50	661·50	882	89·00	78·50	740·00

The expenses of cultivation amounted to 715 pesetas per hectare, and the profits for each of the varieties experimented upon are :—

Variety Cultivated.	Gross Takings per Hectare. Pesetas.	Expenses per Hectare. Pesetas.	Profit per Hectare. Pesetas.	Loss per Hectare. Pesetas.
Upland	897·74	715·60	182·14	—
Yannovitch	766·90	715·60	51·30	—
Georgia	392·88	715·60	—	322·72
Mit Afifi	812·67	715·60	97·07	—
Sea Island	845·44	715·60	129·84	—
Louisiana	740·00	715·60	24·40	—

The results obtained in different experiments at the official establishments may be summarised in the following statement of receipts and expenditure :—

ESTIMATED RECEIPTS AND EXPENDITURE OF COTTON GROWING ON IRRIGATED LAND FOR AN AREA OF 10 HECTARES.

EXPENDITURE.	Pesetas.
One deep plough with two oxen	450·00
150,000 kilos manure	1,500·00
Twenty days' work for distributing manure	40·00
Two ordinary ploughs, three days' work per hectare, each 5 pesetas	300·00
One harrow, 2½ days' work per hectare, each 5 pesetas	125·00
Five hectolitres seed at 15 pesetas each	75·00
50 days' work at sowing, at 2·50 pesetas	125·00
One superficial plough, two days' work per hectare, at 5 pesetas each	125·00
Two hoes, 180 days, at 1 peseta	180·00
140 days' pruning, &c., at 2·50 pesetas	350·00
150 days' picking, at 2·50 pesetas	375·00
Four irrigations at 119·70 pesetas, including cost of water	478·80
100 days' work ginning cotton, at 2 pesetas	200·00
40 days' work for watering, at 2 pesetas	80·00
One watchman for three months, at 1·50 pesetas per day	135·00
Three days for pressing, at 4 pesetas	12·00
Nine days for pressing, at 2 pesetas	18·00
Packing material	18·00
Deterioration of capital on machinery estimated at 2,000 pesetas in ten years at 5 per cent.	159·00
Half of the interest of the capital invested (4,586·80 pesetas at 5 per cent.)	114·67
Rent for the land at 100 pesetas per hectare	1,000·00
Total expenditure, pesetas	5,860·47

RECEIPTS.	Pesetas.
6,000 kilos cotton at 150 pesetas per 100 kilos.	9,000·00
3,750 kilos cotton seed at 12 pesetas per 100 kilos.	450·00
Total	9,450·00

According to these details the profit per hectare would be 358·00 pesetas, and the cost of the cotton 97·67 pesetas per 100 kilos.

The experiments undertaken by private individuals have been both numerous and important, and special mention should be made of those undertaken by Messrs. Trueba Hermanos (planters of Texas cotton), in the Province of Sevilla, and Mr. Silverio Mayolas, in Motril and Catalonia. Messrs. Trueba experimented on an area of 60 hectares of which 45 were non-irrigated, whilst 15 were watered. The crop was lost entirely on the 45 hectares dry land on account of the lack of rain. On the 15 hectares irrigated land a crop of 7,000 kilos of pure cotton was picked, which works out at 466 kilos per hectare.

A COTTON FIELD IN ANDALUSIA

From the experiments of Mr. Silverio Mayolas, it is evident that cotton growing on irrigated land is possible in the whole of the South of Spain, and also on dry soil within certain territory, and that the most profitable varieties are Georgia and Egyptian, which give more than 1,000 kilos clean cotton per hectare, with an approximate profit of more than 2,000·00 pesetas per hectare.

In order not to make this report too extensive, we refrain from enumerating the results of other experiments, which moreover do not materially differ from those made by Messrs. Trueba. To give an idea of its importance it will be sufficient to state that the cotton crop of Andalusia last year amounted to from 120 to 150 bales of 200 kilos each.

Seeing that cotton growing on dry territory will have to be given up, the region for cultivation becomes rather limited, unless one could succeed in irrigating the plains near the banks of the Guadalquivir, which at present are used for pasture land. Though this irrigation might not be very expensive, it would require a hydraulic plant, which neither the land owners nor a private company would think of laying down unless they were able to count on the assistance of the Government. It follows, therefore, that in order to be able to develop to any important degree cotton growing in Andalusia (supposing that it is more remunerative than the cultivation of other produce, which is doubtful) a direct protection from the Government would be necessary in order to turn the present dry districts into irrigated ones.

However, the experience gained by the Official centres and by private enterprise may be summarised as follows :—

1. The conditions of temperature and light in Andalusia and the South of Spain are suitable for cotton growing.
2. The lack of rains in spring, and especially in the summer months, make it impossible for cotton growing to be established on non-irrigated lands.
3. The variety which has given the greatest satisfaction is Upland.
4. The production per hectare seems to be 450 kilos pure cotton.
5. The cost of production may be considered below 1·50 pesetas per kilo.
6. It is probable that if the present high prices of cotton were maintained, cotton growing in Andalusia would be developed.
7. The quality of cotton gathered may be termed "Superior." The length of the fibre is from 30 to 40 mm., and it has a fine and glossy appearance.

Senhor H. P. TAVEIRA (Portugal) read the following paper on "Cotton Growing in the Portuguese Colonies" :—

The report on "Cotton Growing in Portuguese Colonies" presented to the Second International Cotton Congress deals with the associated movement for action and defence which, initiated in England, extending

to France and Germany, and having for its practical result the Congress at Zürich, seeks to promote the cultivation of cotton on a large scale in the African colonies; to assure the supply for the markets of Europe; to do away with crises brought about by high prices; and to checkmate American speculation.

The other principal heads of that paper are :—

A recapitulation of the laws which, since 1852,* up to the date of the Manchester Congress, affected the growth, business, and industry of cotton in the colonies of Portugal and in the metropolis.

For the effects, in Portugal, of the European cotton movement reference should be made to the report presented by the Industrial Association of Lisbon (Associaçaõ Industrial de Lisboa) to the Naval and Colonial Minister on July 15th, 1904. Its consequences have been : (*a*) Appointment of a commission (August 8th, 1904), composed of high functionaries, delegates of industrial and commercial associations, and of shipping companies, professors, agriculturalists, &c.; (*b*) the work of this commission; (*c*) news concerning cotton-growing in the Portuguese colonies; (*d*) conclusions of the report.

These conclusions are the basis of the laws which, subsequent to the Congress in Manchester, were published in Portugal. The first relates to the construction of the railway from Mossamedes to Chella (decree of May 27th, 1905), and the second to the promotion and the development of cotton-growing in the Portuguese colonies (decree of March 20th, 1906, of Dr. Moreira, jun., ex-Minister of the Navy and Colonies).

The present report gives an account of the principal events which have happened in Portugal in the interval between the second and third International Cotton Congresses.

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* It is the second cycle of the history of cotton-growing in the Portuguese colonies, to which the Bills brought in by the Marquis de Sa da Bandeira gave such a vigorous impulse that caused, in 1877, the exportation of cotton from the province of Angola to reach 800 tons.

The first cycle of the influence of Portugal in Colonial cotton-growing dates back to her heroic period of navigation and conquest. After having circumnavigated Africa, and established factories on both coasts, at the beginning of the sixteenth century, the Portuguese chroniclers make mention of the native cultivation of cotton. This cotton, of the Barbadense kind, was probably introduced by the Arabs. Likewise, in colonial legislation there are very ancient traces of the interest taken by the Portuguese in that cultivation. Even the art, though rudimentary, of spinning and weaving cotton has been known since remote times both in Angola and in Mozambique, the white goods or white calicoes of Sofala being held in some esteem. Through the vicissitudes brought about in this province by the warlike invasions of the black race of Central Africa, the native industry and cotton-growing finally disappeared, but cotton having become, so to speak, spontaneous in growth, still exists in almost the whole of the province, some specimens even attaining the height of 3 metres.

As regards the province of Angola, there exist in the Geographical Society of Lisbon (Sociedade de Geographia de Lisboa) curious specimens of the articles manufactured by the natives, who for the past four centuries have carried on in some regions an industry, no doubt primitive, but which serves to demonstrate the aptitude of those people.

The third cycle brings us to the present day. Being based on preceding historical facts, on protective laws, on the international movement, on the will of the country, on the aptitude of its colonies, and on the native tradition itself, everything indicates that this cycle will be the most fruitful and lasting.

The principal items of the decree of March 20th, 1906, are :—

Transactions referring to colonial cotton on the Exchanges of Lisbon and Oporto ; indication of origin and quantities in transit and in store. Organisation of commissions in the various regions to deal with the sale of cotton and to foster and protect its cultivation. Special concessions to the centres promoting cotton-growing which will be established, similar to those already existing in England, Germany, and France. Rules for concessions relating to cotton-growing, fixing the annual duty at 10 centimes per hectare. Exemption from taxes and duties of cotton in the raw state and in the seed, exportation from oversea ports to any destination. Exemption for national mills from all import duties. Like exemption for agricultural machines, instruments, and seed intended for the colonies. Quotation of colonial cotton by similar foreign standards, establishing a like basis or parity between the purchasing prices in the colonies and the selling prices in the metropolis. Creation of experimental cotton centres for the selection of seed, planting and cultivating same, in order, by means of object-lessons, to promote the education of native workers. Purchase and installation of machinery for the same purpose.

It should be noted that the decrees of May 27th, 1905, and of March 20th, 1906, are the termination of a complete legislative work for the present requirements in Portugal.

The Portuguese colonies, with their exceptional and various conditions of soil and climate, are specially adapted for the development of the best varieties of cotton. Their well-traced network of rivers, their safe ports, all possessing regular navigation, and the already existing means of transport overland, render Angola and Mozambique open fields for vast exploration.

Having had the international problem placed before her, Portugal, facing it boldly, joins in the movement for common defence.

The decrees of May 27th, 1905, and of March 20th, 1906, legislating for Portugal, are at the same time a worthy reply to the appeal of the International Congress of Zürich.

The country appreciates and helps the work of the Government. In the "Sociedade de Geographia de Lisboa," in the "Associaçao Industrial," in the "Associaçao Commercial," and other corporations and assemblies of the country, the recent decrees meet with the heartiest approval, in which the Press unites.

One of the immediate and practical effects of the decree of March 20th, 1906, was the initiative taken by the "Sociedade de Geographia" in suggesting the formation of an association which should have the same working powers and aim as, for instance, the "British Cotton-Growing Association," or "l'Association Cotonnière Française."

This association, which is about to be formed, can count already upon valuable help in many quarters, and will not be long in entering upon its work.

Another fact which should be brought forward in this report is the installation of a Colonial Exhibition, in the Algarve Hall of the "Sociedade de Geographia de Lisboa." It was an important undertaking, and a striking monument of the progress of the Portuguese colonies and of their immense wealth in coffee, india-rubber, and cocoa. That part of the exhibition relating to cotton is shown in the following page :—

The list shows that various colonial and agricultural companies of the provinces of Angola, Mozambique, Timor, and Guinea sent exhibits.

The fine quality of the two last exhibits on the list, cultivated in the vicinity of Lisbon, is noteworthy. This is not the first indication that, even in Portugal, if it were necessary, cotton-growing might be attempted with some probability of success.

The number of samples exhibited was 53 : 16 from Angola, 33 from Mozambique, one from Timor, one from Guinea, and two from Lisbon.

From the list it can be seen that the general average, as regards quotation, of all the samples (including No. 118, the only exceptionally low one) is 6¼d. That is to say, a higher quotation than that for "good middling," on the date when this quotation was made.

All the samples correspond to the best classes of the kind which they represent.

They were analysed and priced by competent technical men with the assistance of an English expert, a cotton merchant, who had called at Lisbon, and who lent his aid in this classification.

Among the samples bearing the highest quotation are to be found those of the "Companhia Agricola do Cazengo (Angola)," and, in Mozambique, those of the "Companhias da Zambezia," "do Nyassa," "do Buzzi," and "Companhia de Mozambique."

Almost all the samples belong to the Egyptian varieties, whilst there are some American short staple, and two samples (138 and 142) of Georgia and Sea Island cotton.

The Companhia de Mozambique made a complete exhibition, in two large glass cases, one containing india-rubber, another cotton and seed. In the latter were exhibited, side by side with the exhibits of the above-mentioned company, the productions of some of the principal concessionaires, cotton-growers in the territory of Manica and Sofala. The total number of samples exhibited was 14; one of "Upland" cotton, and the remainder of the Egyptian varieties "Mit-Afifi" and "Abassi." Five of these are shown in the Table A.

The cotton samples (as well as the india-rubber) were presented in all the stages beginning with the raw material, in the pod, in the seed, or cleaned, passing through all the intermediate phases of the industry. The "Companhia Fabril Lisbonense," directed by the signatory of this report, took charge of the manufacturing process of the cotton, from the raw cotton up to the woven piece, in the grey and in colours, the latter being especially remarkable for the satin-like appearance of the cotton, which, however, had not undergone any mercerising process.

COLONIAL EXHIBITION, (Lisbon) April and May, 1905. Samples of Cotton.

Table A.

Nos.	Exhibitors.	Region.	Fibres.	Quotation.	Origin.	Place.
119/120	Antonia José d'Araujo	Angola	1 1/32 in.	6 1/2 d.	Novo Redondo ...	Roça Amizade
113	Nicolau Nunes Ferreira	,,	1	6 1/2	Ambriz	Rio Loge
114	F. Bacelar & Co.	,,	1	5 1/2	Benguella	Cacalla
115	Joaquim Alfredo de Brito	,,	1 1/4	6	Loanda	Quilombo (x)
116/17	F. Maria Duarte	,,	1	5 1/4	Zaire	Santo Antonio
118	Joaquim Ribeiro Pereira	,,	3/4	3 1/2	Golungo Alto	Bemfiica
142	Companhia Agricola Casengo	,,	1 1/2	8	.....	—
121/27	L. José Albuquerque & Co.	,,	1 1/4	6 1/4	.....	—
				average		
129/32	Companhia do Nyassa	Mozambique	1 3/32	6 3/4	Mazamboa	Quissanga and Matrabala.
134/137	Ditto	,,	1	5 3/4	Moaba	Medo-Lurio
169/174	Ditto	,,	1 1/32	6 1/2	Lurio	—
138	Companhia do Zambezia	,,	1 1/2	7 1/4	Maganje	Bompona
139	Ditto	,,	1	6 1/4	Maganje	Bompona
140	Ditto	,,	3/4	5 3/4	Maganje	Bompona
141	Ditto	,,	1 1/2	7 1/4	Maganje	Bompona
141	Companhia Agricola do Moribane	,,	1	6 1/2	Territory of Manica and Sofala.	Estate Visc. de Carnaxide.
128	Companhia Colonial do Buzi	,,	1 3/4	7 1/4		Lusitania
14 Samples. The analysis was made of five samples of Egyptian Cotton.	Companhia de Mozambique	,,	1 3/32	7		Circ^ao. de Chimoio
	Ditto	,,	1 1/4	6 1/4 (average)		,, Cherinda & Moribane
	Ditto	,,	1 3/32	6 (average)		,, Neves Ferreira
	Ditto	,,	1	6 (average)		,, Govuro
	Ditto	,,	variable	6 (average)		,, Sena
240	Companhia de Timor	Timor	1	5 1/2	?	Dilly ?
237	Alfredo Loureiro de Fonseca	Guinea	1	5 1/2	?	Farim
239d	Condessa d'Edlla	Lisbon	1	6 1/2	Parede	—
239	J. V. Mendes Guerreiro	,,	1 3/8	6 3/4	Seixal	—

(x) Area 50 hectares. Production 15,800 kilos.

The report presented by the Companhia de Mozambique formed part of the exhibits, and shows the degree of progress and the richness of its territory. It is a very important piece of work, the study and drawing-up of which was entrusted by the Companhia to the Portuguese technical transcriber, Mr. Nuno de Bulhao Pato. The report, already translated into French and English, is intended for wide circulation in the South African colonies.

STATISTICS.

The industrial elaboration of the raw material during the last 14 years is shown in the following list of the importation of cotton :—

Year.	Origin.							Total Kilos.
	Foreign.				National.			
	America.	Brazil.	Egypt.	Angola.	Cape Verd.	St. Thomé.	Mozambique.	
1892	2,630,000	4,664,000	6,500	59,600	13	—	—	7,360,113
1893	4,630,000	6,214,000	—	107,800	—	—	—	10,951,800
1894	4,460,000	6,009,000	—	68,200	—	—	—	10,537,200
1895	7,941,000	4,793,000	—	86,300	700	—	—	12,821,000
1896	6,105,000	3,597,000	26,600	151,800	1,030	730	—	9,882,160
1897	8,233,000	5,040,000	—	84,000	—	—	—	13,357,000
1898	10,045,500	5,250,000	48,800	62,400	5,500	850	—	15,413,050
1899	11,944,000	3,600,000	21,600	97,000	400	—	—	15,663,000
1900	8,681,000	7,172,000	37,800	50,200	—	—	—	15,941,000
1901	9,246,000	3,945,000	112,300	21,300	—	7,800	—	13,332,400
1902	7,654,000	7,091,000	180,700	13,300	—	—	—	14,939,000
1903	7,096,200	7,045,000	111,500	1,300	—	—	—	14,254,000
1904	11,204,000	3,584,000	105,000	38,250	—	—	—	14,931,250
1905	12,052,269	3,770,828	126,164	106,169	—	—	5,538	16,060,968
1906 Jan.-Feb.	1,240,624	602,472	6,729	20,422	—	—	—	1,870,247
	113162593	72,377,300	783,693	968,041	7,643	9,380	5,538	187314188

A rough calculation gives the annual average consumption per head of 2·5 kilos of manufactured woven goods, taking into considerations the exportation to Brazil and the colonies. These figures per head, as is evident, fall far below the degree of development which will be reached by the cotton industry in Portugal.

Other conclusions :—

Increase of importation, which is a proof of corresponding home demand.

This is, moreover, a general fact in all countries.

Exportation from Angola in a wavy line, *i.e.*, fluctuating, but decreasing until 1903, when it was almost nil.

Increase of exportation in 1904, and a sudden upward leap in 1905, coinciding with and explaining the increase in growing cotton.

It is also concluded that, to maintain the proportion of the first two months of 1906, the export of this year will exceed that of 1905.

Shipments of Mozambique cotton are being made to the home market.

Exportation through the port of Beira (1905).

		Kilos.	
J. P. Raposo	..(Exhibitor)	12,180	
Soares & Monteiro	,,	12,000	
William Philippi	,,	6,336	
MacCallum	,,	5,000	
Companhia do Buzi	,,	2,000	
J. M. Cunha	,,	2,000	
			39,516
Companhia do Moribane, various planters	,,		11,360
Companhia de Mozambique	,,		17,579
Stock (app.)			2,000
			70,455

The forecasts for 1906 are, as a minimum, 275 to 300 tons, at the rate of 350 kilos of cotton in the seed per hectare.

Some regions (Chimoio, Neves Ferreira) produced in 1905 one ton per hectare. In Bamboo Creek (district of Neves Ferreira), on the land of the Rhodesia Cotton Syndicate, the crop of American cotton was at the rate of 415 kilos of clean cotton per hectare (*vide* table). The agriculturalist Alexander calculates that the average of production on good ground of the territory amounts to 700 kilos per hectare.

COTTON-GROWING.

It is to be regretted that only a few of the contributors to the Colonial Exhibition have sent with their samples details relative to the area and production of the districts under cultivation. The scarcity of statistical particulars of value is especially noticeable for the Angola plantations, and for this reason it is impossible to give in this report a general list which would have been both useful and interesting. In the next Congress Portugal will certainly supply this want.

In the meantime, the private and official information shows that the number and extent of the plantations in that province are considerably higher than in previous years.

TIMOR.—According to information received from the agent of the Companhia de Timor in Hong Kong, the cultivation of cotton, after that of coffee, had attained the greatest development in this Portuguese possession. From Japan no definite replies have come to hand. The species which in Timor has been found best suited to the climate is American cotton. The Eyptian varieties did not give a good result. The growing embraces an area of 50 to 60 hectares, with about 60,000 plants, of which 45 hectares are in Dilly, and the remainder in Ermera.

GUINEA.—It is to be regretted that the report of the Agricultural Director of Guinea on the varieties of cotton and processes of cotton-growing in the province had not come to hand when this treatise was

prepared. The information gathered refers to the plantations in Geba, Farim, Cubisseco, &c. The cotton in Farim, as in the greater part of that Colony, is grown exclusively by the natives, and is only used for making a cloth called " Bandas," narrow pieces of woven goods running from 15 to 20 cm. in width, which still serve as currency in some regions of Guinea. In Cacondo (Alto Cacine) there has been, since 1898, a fair and regular cultivation of Sea Island cotton ; samples have arrived in Portugal from Cacondo. The plantation belongs to a French subject M. Pierre Puvel. A small quantity of cotton produced was exported to Hamburg in 1903, through the intermediation of the Company Otto Schacht, of Bolama. There are in this city of Bremen samples on view of products of native weaving.

MOZAMBIQUE.—An expansion of cotton-growing has taken place in the province of Mozambique. Evidence is forthcoming that in 1903, and particularly in 1904 and 1905, there was a wave of enthusiasm in the territory of Manica and Sofala. The " Companhia de Mozambique " is laying down the administrative and technical bases for serious work in its territorial concession ; it helps the small growers and sees that the natives take an interest in cotton-growing. Scientifically-informed companies, possessed of considerable capital, like the "' Rhodesia Cotton Syndicate." the Companies of " MacCallum," " Dr. Soares," "William Philippi," &c., have been established, The " Companhia do Buzi " and the " Companhia do Moribane " support the movement ; petitions for concessions of lands are multiplying ; in one word, the territories of Manica and Sofala, encouraged by the brilliant results of their experiments, confident of remunerative production and of producing qualities at least equal to the original varieties, have begun to enter upon a practical period of agricultural activity.

In recapitulation, we see that in Portugal the last few months have been fruitful, and that this country, giving its close attention to the cotton problem, has been able to put into effect the European international demand for an increase in cotton cultivation.

Without wishing to dwell further on the various points brought forward in this report, I must say that one of the most important factors was the Colonial Exhibition, for by its means the activity of the country may be estimated.

The Exhibition was always very much frequented, and His Majesty the King of Portugal deigned to honour it with a visit, promising to continue to favour with his gracious protection the cultivation, commerce, and industry of cotton.

General Gorjão and Dr. Moreira, jun., made a lengthy visit to the Exhibition. At this point it is my duty, thus also giving expression to the feeling in my country, to thank the two ex-Ministers of the Navy and Colonies for their distinguished and meritorious labours. The former I thank for the initiative he took in appointing an official Commission to study the problem of colonial cotton, the latter for the strenuous manner in which he applied himself to the work.

Baron CANTONI (Italy) : As we have been on the subject of cotton cultivation, I would like to add a few words—to tell the Congress, on

behalf of the Italian Cotton Association, that our attempts in the Italian Colony in Abyssinia are being continued. The extension and the results were not worth while writing a new report about, but I wish to tell the Congress that we are persisting, and we are getting the natives to follow the example of the Cotton Cultivating Company; and that a ginnery has been sent to Agordat from England. In this way we hope to encourage the natives in local enterprise and initiative.

The CHAIRMAN: I am sure we are greatly indebted to the gentlemen who have prepared reports upon cotton growing, and I can assure them that their reports, which will be included in the official report of the Congress, will be circulated among all the cotton spinners and all the governments of the world.

Speaking with full knowledge of the work that has been accomplished by the English Federation of Master Cotton Spinners Associations, I can assure you that the International Federation has made more progress during the time it has been in existence than any organisation of which I have experience. The International Federation is a very great power, and the moral effect it exercises is enormous.

Speaking of the social aspects of the Congress, the Chairman said: I am one of those who believe that quite as much good is done by the friendly social intercourse among men of all nationalities engaged in one industry as is done by the formal meetings of the Congress. The great kindness and magnificent hospitality displayed by the directors and managers of the North German Lloyd Steamship Company, in placing one of their liners at our disposal, and giving us an opportunity of being together for a further period of two or three days, cannot be overestimated. The occasion will not only be productive of a vast amount of good to the cotton industry, but will add materially to the permanence of those good relations which have been so marked a feature of our meetings here.

On the motion of Herr STARK, seconded by M. A. ESNAULT-PELTERIE, and supported by Mr. ATKINS, the Congress resolved unanimously:—

> "That this Congress again expresses its strong belief that the broadening of the sources of the supply of cotton is absolutely necessary for the future prosperity of the cotton trade, and urges all European governments and the members of the International Federation to support in every way the various cotton-growing associations."

Levy for 1907.

On the motion of Mr. C. W. Macara, seconded by Mr. J. M. Thomas, and supported by Herr Gross, it was unanimously resolved

"That the Levy for the year 1907 shall be at the rate of $\frac{1}{100}$d. per spindle, and $\frac{1}{4}$d. per loom."

Mr. Macara stated that the gentlemen who had served on the International Committee during the past year had been re-elected for the ensuing year.

The Next Congress.

Mr. Macara stated that the Austrian Association had extended to the Congress a hearty invitation to hold the next annual meeting in Vienna, and he moved that the invitation be accepted.

Mr. J. M. Thomas seconded, and the motion was carried with acclamation.

Herr Kuffler thanked the Congress for accepting the invitation and assured them of a very cordial welcome in Austria.

Speaking on the question of the collection of cotton statistics, Herr Gross expressed the hope that the English Federation would be able to arrange for the information regarding stocks and consumption of cotton to be collected from non-members. If this were done, the tabulated information would become much more valuable.

Mr. Macara said he hoped the English Federation would see its way to fall in with this suggestion, as they needed the most accurate statistics they could procure. They ought also to know the consumption of the 25,000,000 spindles in America.

Mr. MacColl: I wish to express, on behalf of the New England Cotton Manufacturers' Association, our appreciation of the kindness of your Federation in inviting us to be represented at these gatherings, and also to thank you for the courtesies extended to myself. Our American Associations are anxious to co-operate with you in every way that is possible, although we are not members of your Federation. You have referred to statistics, and I would like to point out that in America that work is being done by the Census Bureau. There is a bulletin issued each year showing the stock on hand September 1st, the amount of cotton received and used during the year, and the stock on hand the following September 1st. With the statistics prepared by your Federation, and the bulletin issued by our Census Bureau, as you have

stated, practically all the spindles of the world are covered. It is, therefore, not necessary for our Association to supply statistics, as you have the information by Act of Congress. Your Federation exists largely, or entirely, I may say, for the purpose of dealing with matters relating to the raw material. For a long time the raw material must come from America. You must have important relations with our country, and a great deal can be accomplished by getting into closer touch with the growers in the Southern States. They are full of a new and progressive spirit, and are ready and willing to co-operate with you in many ways; in more ways, perhaps, than you dream of. One other matter to which I wish to refer is in regard to the committee appointed at the last meeting of the New England Cotton Manufacturers' Association, to consider the whole question of Government Crop Reports. By a recent Act of Congress some changes have been made in the manner of issuing these reports. In certain months, "Condition Reports" and "Ginning Reports" will be issued simultaneously, and it is hoped that this will have a steadying effect upon the market. Our committee intends to watch these reports carefully, and we shall be glad to hear from your committee what changes you think would be desirable in relation to Government Crop Reports.

Mr. C. W. Macara proposed that the hearty thanks of the delegates be accorded to Herr Gross, the President of the Congress, for the admirable arrangements he had made. Everything had passed off with perfect smoothness, and the arrangements for making their visit to the historic city of Bremen both instructive and enjoyable were complete to the smallest detail. Much time and thought must have been bestowed on this work by Herr Gross, who was deserving of the warmest thanks they could give him. He would also like to make reference to the great kindness of the ladies of Bremen for the manner in which they had provided for the enjoyment of their lady visitors. Their kindness would be treasured as a pleasant memory in the days to come.

On being put to the meeting, the resolution was carried with acclamation.

Herr GROSS, in reply, said he could never have carried out anything like the programme they had had if it had not been for the assistance of his friend Herr Plate. He was also very thankful to the ladies of Bremen for the part they had taken in entertaining the lady visitors to the Congress.

On the motion of Mr. C. W. MACARA, seconded by Mr. W. H. MORRIS, the following resolution was unanimously adopted :—

"That the best thanks of the Congress be accorded to the gentlemen who had successively presided over the Congress, and to the following gentlemen for contributing papers :—

H. W. Macalister, G. Moores, A. W. Cramer, J. de Hemptinne, S. M. Johnson, Luis Firmino d'Oliveira, Felix Fernandez Torres, E. Lang, R. Brandts, C. Berger, R. H. Jackson, J. C. Atkins, E. Stark, A. Esnault-Pelterie, E. Calvet, H.P. Taveira.

It was also unanimously resolved :

That the best thanks of the Congress for their invaluable co-operation in promoting its great success be accorded to—

The Burgomaster and the High Senate of Bremen.
The President and Directors of the Bremen Chamber of Commerce.
The President and Directors of the Bremen Cotton Exchange.
The German Spinners' Associations.
The President, Herr Geo. Plate, his co-directors, and the managers of the North German Lloyd Steamship Company.
And to all those who have in any way assisted in connection with the Congress."

This closed the business of the Congress. The delegates, during the afternoon, travelled to Bremerhaven, where they went on board the s.s. "Gneisenau" as the guests of the North German Lloyd Steamship Company. The handsome steamer took them through the Kaiser Wilhelm Canal to Kiel Harbour, where on the morning of arrival the International Committee had the honour of being received by H.I.M. the German Emperor on board the s.s. "Hamburg." The "Gneisenau" returned from Kiel on Friday, arriving at Bremerhaven the following day.

PROGRAMME.

THIRD INTERNATIONAL CONGRESS OF DELEGATED REPRESENTATIVES OF MASTER COTTON SPINNERS' AND MANUFACTURERS' ASSOCIATIONS, BREMEN, JUNE 25TH TO 27TH, 1906.

PRESIDENT: KOMMERZIENRAT FERD. GROSS (Germany).

MONDAY, JUNE 25TH.

9-0 a.m. Opening.

Presidential Address, KOMMERZIENRAT FERD. GROSS (Germany).

Delegates' Roll Call.

Address and Report for the year 1905-1906. Mr. C. W. MACARA, Chairman of Committee (England).

Financial Statement. Mr. C. BERGER (France).

Chairman: Mr. H. P. TAVEIRA (Portugal).

"Rules of Cotton Exchanges." Mr. H. W. MACALISTER (England), Mr. A. W. CRAMER (Germany).

1-0 p.m. Visit to the Exchange.

1-30. Interval.

Chairman: Mr. E. CALVET (Spain).

3-30. "Damp in Cotton." Mr. JEAN DE HEMPTINNE (Belgium).

"Spinners' Associations in North Portugal." Mr. LUIS FIRMINO D'OLIVEIRA, Mr. FELIX FERNANDES TORRES.

8-0 Reception of the Delegates and Banquet in the Town Hall, given by the High Senate of Bremen.

TUESDAY, JUNE 26TH.

Chairman: Mr. HENRY HIGSON (England).

9-0 a.m. "Cotton Supply." Mr. E. LANG (Switzerland), Mr. R. BRANDTS (Germany).

"Cotton Statistics." Mr. C. BERGER (France), Mr. R. H. JACKSON (England).

1-30 p.m. Interval.

3-30. Inspection of the various departments of the Bremen Cotton Exchange, the city of Bremen, the Harbour, and the Weser Wharf.

8-0 p.m. Banquet in the Börsensaal, given by the Bremen Chamber of Commerce and the Bremen Cotton Exchange.

WEDNESDAY, JUNE 27TH.

Chairman: Mr. C. W. MACARA (England).

8-30. "Cotton Growing." Mr. J. C. ATKINS (England), Kommerzienrat E. STARK (Germany), Mr. A. ESNAULT-PELTERIE (France), Mr. E. CALVET (Spain), Mr. H. P. TAVEIRA (Portugal).

Levy for 1907.

Appointment of Committee.

Selection of place for Congress 1907.

11-30. Luncheon in the Large Hall of the "Union," Wachtstrasse, adjoining the Cotton Exchange, given by the German Spinners' Associations.

Visit to Kiel Regatta, by kind invitation of the North German Lloyd Steamship Company.

2-45 p.m. Special train from Bremen Railway Station to Bremerhaven.

4-15 Arrival at Bremerhaven.

5-0 Departure of the SS. "Gneisenau."

FRIDAY, JUNE 29TH.

7-0 p.m. SS. "Gneisenau" returns to Bremerhaven.

SATURDAY, JUNE 30TH.

12-0 noon. Arrival in Bremerhaven.

2-38 Train from Lloydhalle to Bremen.

3-42 Arrival Bremen Railway Station.

APPENDIX.

Cotton Growing in India.

By S. M. Johnson (Cawnpore).

In regard to the cotton supply from India, I may say that considerable impetus has been given to the improvement of the staple and wider cultivation by the action of the British Cotton Growing Association in pressing upon the Government of India through the Secretary of State for India the urgent necessity for increased and improved cultivation. Fairly large grants have been set aside in each of the Presidencies for these objects, and special officers have been or are to be appointed. Apart also from these special measures the Government of India has quite recently devoted large sums of money to the development of Agriculture in the various Provinces, and great improvement and development in India's agricultural resources within the present decade are as a consequence assured.

Quite recently a cotton has been discovered in India which has been classed "superfine" at Liverpool, and is far superior to any Indian cotton I have ever seen. It is said the cotton is indigenous to India, and that the trees can yield from 400lbs. to 800lbs. per acre, which is from eight to sixteeen times larger than the average present production of any Indian cotton.

Though there has been progress, there still remains much to be done, especially in the direction of seed selection, and in the appointment of experts for cotton alone; and I would suggest that the Committee pass a resolution acknowledging the efforts already made by the supreme and local governments, and by administrations of India, for the extension and improvement of cotton cultivation, and expressing a hope that there will be no relaxation of these efforts; and that a copy of the resolution be forwarded to the Secretary of State for India and to the Government of India.

I think if the British Cotton Growing Association devoted more of its attention to India, and to the improvement of staple and wider cultivation of cotton there, its efforts would probably be rewarded with more promising results than they can ever expect to get from other parts of the British Empire. The particular direction in which pressure is needed is in appointing special officers in each cotton-growing district, whose duties would be not only to advise in regard to such matters as the selection of seed, fertilising, and other processes, but who could also watch over the handling, ginning, and pressing of cotton after it has been picked, and also report from time to time the area of land under cultivation, together with reliable forecasts of the crop. At present these duties are concentrated in the hands of the Director of Agriculture in each Province, and his department is, I know, about to be enlarged; but in the United Provinces this expansion is more towards giving young men an agricultural training and developing our agricultural resources generally. What I would like to see recognised is that cotton is a product of enormous value to India; that it requires special care and special treatment not only before the seed is put into the ground, but after the lint has been gathered, and that there should be no cheese-paring or false economy in dealing with it.

Note from the Spinners of the Nord de la France.

In support of the views expressed at the Congress of the International Cotton Federation, and at the recent Congresses at Washington and Boston, with regard to the conditions under which American cotton is delivered, the French spinners think it desirable to state, briefly, what they consider to be the most needed reforms.

(1) They urge that the American cotton bale should be turned out in as good a condition as that of either Egypt or India. An improvement of this kind would reduce the waste of cotton in transit, the number of cut bales, the damage to cotton from its present loose packing either by water, mud, or marking ink, and the loss arising constantly from faulty marks, numbers, &c.

(2) With the present system it is frequently difficult, if not impossible, to recognise the bales when they leave the ship. Annoyance through interchanging the lots is the result.

(3) *Dampness in the raw cotton.* It is an established fact that cotton generally arrives damp, and no reliable means exist for finding out exactly the percentage of dampness, which sometimes is as much as 7 or 8 per cent. more than the normal. It is desirable, in the common interests of the industry, that this dampness should be controlled. In France, and particularly in the North, we have rules which fix a limit of moisture for textiles. As regards yarn, the Turin Congress, which was held some 30 years ago, fixed the rate of 8½ per cent. as the limit of dampness for merchantable goods, after they have been perfectly dried.

(4) *The guarantee of* 1 *per cent. on the gross weight.* This guarantee is entirely deceptive, as it is usually taken into consideration at the port of shipment, which obliges the spinner to provide for it, as he is not covered for any risk, the 1 per cent. being nearly always reached.

(5) *Future Speculation.* It is to be hoped that the American Government will check the manipulation of the speculators in raw cotton, either by establishing a State tax, or by compelling the speculator to pay a heavy premium to the spinner; or by any other effective means.

The French spinners ask the Congress to take these complaints into consideration, to discuss them with a view to finding suitable means of regulating the transactions in raw cotton, and to take the necessary steps to safeguard the interests of all concerned.

RENÉ WIBAUX,
(Delegate from the North of France).

Excerpts from Rules of American Cotton Exchanges.

GALVESTON.

Extracts from the Charter, By-laws, and Rules of the Galveston Cotton Exchange and Board of Trade, 1904.

RULE II.

STANDARD SAMPLES.

SECTION 1. The Board of Directors shall provide standard samples of the different grades of cotton dealt in, and shall keep the same on exhibition secured under glass. These standards shall be the basis of all transactions and quotations, whether of spots or futures.

RULE III.

SAMPLES, SALES, WEIGHING, AND DELIVERY.

SECTION 1. All cotton shall be sold by samples drawn from the flat or top side of the bale, and the weight of the sample is restricted to eight ounces.

SEC. 2. The samples by which cotton is sold must be retained by the factor till delivery is completed.

SEC. 3. When a sale of cotton is made the broker shall, on the same day, furnish a memorandum of the contract to both the factor and the buyer. Every member of the Exchange, buying cotton, shall, before 3 o'clock on the day of purchase, make a report to the Secretary of the Exchange, giving the whole number of bales bought by him.

SEC. 4. All cotton shall be arranged, weighed, and ready for the broker within five days after sale—weather permitting—and shall be received and paid for, on delivery, within four days after being so weighed—weather permitting.

SEC. 5. When not received within that period, unless delay is owing to bad weather or fault of the press, the seller may, at his option, resell the cotton for account of the buyer.

SEC. 6. In the event of the seller failing to tender the cotton within eight (8) days from the date of the contract—unless prevented by similar causes—the buyer may, at his option, cancel the purchase.

SEC. 7. All cotton must be weighed after sale, and by an authorised weigher.

SEC. 8. When thus weighed, buyers are to accept and pay for the weight of cotton thus returned, actual errors excepted; but where cotton is weighed before date of sale, or where it is weighed by an unauthorised weigher, then the buyer may have the cotton re-weighed at the expense of the seller, and shall pay only for the weight he actually receives.

RULE IV.

ALLOWANCES AND REJECTIONS.

SECTION 1. Seedy or fraudulently-packed cotton shall be rejected and not be deliverable. Mixed packed cotton shall be deliverable only on the following conditions :—

First—Mixed packed cotton shall be defined to be such bales as contain more than one quality of cotton, the lower quality being so situated in the bale that no design of false or fraudulent packing appears; the difference, however, in qualities, must be equal to at least one-half grade in bales sold as Low Middling and above, and one full grade in bales sold as below Low Middling.

Second—When mixed packed cotton is received, it shall be received as of the grade of the lowest quality in the bale.

Third—No bale shall be rejected as mixed packed when the lowest quality in the bale is equal to or better than the sample by which it was sold.

SEC. 2. No bale of cotton weighing less than three hundred pounds shall be deemed merchantable, and any buyer may refuse to receive the same.

SEC. 3. Six iron bands shall be considered sufficient for each bale of cotton. Any excess shall be deducted from the gross weight, at the rate of one and three-tenths ($1\frac{3}{10}$) pounds for each additional band. When compressed cotton is sold, it shall be weighed with an allowance to the seller of three (3) pounds per bale, on all bales having six (6) bands. The allowance for extra or missing bands shall be at the rate of one and three-tenths ($1\frac{3}{10}$) pounds per band.

SEC. 4. When thirty per cent. of any list sold as regular cotton proves to be irregular cotton, the buyer may cancel the whole purchase.

SEC. 5. When a buyer rejects cotton he shall put no mark on the rejected bales without the consent of the seller, but the seller is

prohibited from reselling the rejections without informing the proposed purchaser of the previous rejection and the reason therefor.

SEC. 6. When cotton of various grades is sold by sample, at an average price, and for proper causes rejections are made, and such rejected bales are from the grades better than the average, the seller shall make good to buyer the difference in value; and if the rejections are from grades below the average, the buyer shall make good to the seller the difference.

RULE V.

NO GUARANTEE AGAINST RECLAMATIONS.

SECTION 1. After cotton has been examined and passed upon by the broker or agent of the buyer, no claim shall be made against the seller for any irregularities whatever.

SEC. 2. Irregular cotton shall be sold with all faults, and the seller shall pay to the buyer no guarantee fee against reclamations.

RULE VI.

FEES ON RECEIPTS AND SHIPMENTS.

SECTION 1. Receivers and shippers of cotton shall pay to the Exchange such fees on receipts and shipments as may be assessed by the Exchange in the annual budget, and such fees shall be paid on all cotton whatsoever, whether regular or irregular.

SEC. 2. Cotton which has already incurred the fees for shipment (whether recovered from wrecks, fires, or otherwise) shall, on reshipment, incur no additional shipping fee, if shipped in the original packages; but if the cotton be broken up and baled anew, it shall bear the same charges as other cotton on shipment, notwithstanding the previous payment.

SEC. 3. All cotton compressed, stored, sampled, weighed, classed, marked, inspected, or in any other way prepared for shipment, whether at the depôt, wharf, or other locality in the city, shall be subject to the same fees as factors cotton, which fees shall be collected from the party controlling the cotton here. Any member attempting to evade this rule by diverting the consignment of his cotton from himself to a ship, or a steamship line, or to any other person, shall be proceeded against under Article I., section 15 of the By-Laws.

SEC. 4. Members buying cotton from or selling cotton to non-members of the Exchange, will be required to pay the Exchange the fees for receipts and shipments which would be chargeable against said non-members if they were members, in addition to their own fees to the Exchange.

RULE VII.

PROSECUTION OF FRAUDS.

SECTION 1. The duty of the Committee on Credits shall be to take cognizance of all violations of commercial integrity, honour, and

good faith, represented to them by members of this Exchange, when such charges are made against parties connected with the cotton trade or the handling of cotton, either in this port or in the country.

SEC. 2. Whenever cotton is discovered by any member of the Exchange to be fraudulently packed, or where substitution shall have been made by changing marks or otherwise, it shall be his duty to report the same promptly to the Committee on Credits, whose duty it shall then be to take measures to discover the guilty parties, and prosecute the same to conviction. All expenses for such prosecution to be borne by the Cotton Exchange.

SEC. 3. This committee shall keep, in a book prepared for that purpose, a record of all such charges as may be made, alphabetically arranged, which book shall at all times be open to the members of this Exchange. It is understood, however, that this committee has no control over charges made against members of this Exchange, which latter charges properly come under the supervision of the Committee on Membership.

RULE X.

SUPERVISION AND INSPECTION.

SEC. 3. The assistant Supervisors and Inspectors, as soon as a list of cotton has been received, shall, if required, proceed with the classers to examine the rejections and report the same to the factors. They shall also report to the shipper as to the condition of cotton in presses and on wharves every evening. The assistant Supervisors and Inspectors shall inspect every bale of cotton shipped, and report what has been done at their respective presses to the Chief Inspector every evening, who shall thereupon send a detailed report to each shipper. The assistant Supervisors and Inspectors shall see that all regulations established by this Exchange are properly enforced, and shall report all infractions of the same to the chief. They shall also see that all cotton at railroad depôts, in presses, or on wharves is properly handled and protected, and will perform such other duties as may be required.

SEC. 4. All loose cotton pickings and samples baled by the press shall be branded in large letters on both sides, "pickings," "samples," or "rebaled," as the case may require.

SEC. 5. All pickings or samples in bales received by the presses for storage or compressing shall be branded in large letters on both sides, "pickings," "samples," or "rebaled," as the case may require.

SEC. 6. No baled pickings, samples, or loose cotton, or mixed or falsely packed cotton shall be shipped or removed from any press, or by any member of this Exchange, without the knowledge of the Supervisors and Inspectors, who shall keep a record of same, stating marks and number of bales, for whose account shipped or removed, from what press shipped or removed, name of vessel, where bound, and date of shipment or removal.

SEC. 7. Supervisors and Inspectors are required to have arrested all parties stealing cotton.

SEC. 8. It shall be the duty of the Supervisors and Inspectors to collect all loose cotton, which would otherwise be wasted, which may be found on wharves and elsewhere, which cotton, after baling, shall be branded " pickings " on both sides, and the amount collected shall be reported weekly to the Secretary of the Exchange, to be disposed of by the Committee and the proceeds to be paid over to the Exchange.

SEC. 9. The Chief Supervisor and Inspector and his assistants shall keep a record of the weather; also of the condition in which cotton is delivered to the various vessels. They shall also keep a record of the condition in which cotton is taken on board—in a wet or dry condition; and if wet, they shall specify whether the same was received wet or became wet by being exposed to rain upon the levee or being rolled through the mud. They shall make daily reports embodying all particulars, which reports shall be kept on file and shall be entered up in a book to be kept by the Chief Supervisor and Inspector.

SEC. 10. They shall, in all cases where cotton is being taken on board in such condition as to render it liable to become damaged upon the voyage or to damage other cotton by contact, notify the master of the vessel of the impropriety and risk of taking cotton on board in such condition. They shall also report the cotton carried on deck by any vessel leaving the port.

SEC. 11. The standard of compressed cotton shall not be less than 22½lbs. to the cubic foot measurement, on wharf or alongside of vessel. The Supervisors and Inspectors shall strictly adhere to the following rule of measuring a bale of cotton, viz.:

" Measurement to be taken on the bands for width and thickness, and from both ends of the bale for length."

SEC. 12. Where any disputes arise as to quality of compressing, the Supervisor and Inspector shall be notified within twenty-four hours after the cotton is received by or for the vessel, and the Chief Supervisor and Inspector, or any of his deputies, shall inspect such cotton on which the quality of compressing is disputed, without any delay after proper notification.

SEC. 13. Cotton bales shall not be considered properly delivered to vessels unless with six bands and without any irregularities in their compressed condition. The end band shall not exceed four inches from end of bale. Supervisors and Inspectors shall use their discretion with spongy and badly boxed bales, and condemn the same whenever in their opinion they can be made nearer to the standard by recompressing.

SEC. 14. In all cases where cotton has been condemned by the Supervisors and Inspectors of this Association, it shall be the duty of the master or agent to give prompt notice of the same to the party delivering said cotton; and twenty-four hours from time said notice is delivered shall be allowed to have said cotton recompressed before such action is taken by the authority of the Chief Supervisor and Inspector for account of the carrier or press delivering such cotton.

SEC. 15. It shall be the duty of the Chief Supervisor and Inspector when a vessel clears, upon application of any member of the Exchange who is a shipper on such vessel, and to the extent of his shipments only, to draw up a certificate setting forth the condition in which such shipment or shipments were taken on board, and it shall be the duty of the Secretary of the Exchange to countersign such report and affix thereto the seal of the Exchange if required. No certificate, however, shall be issued as to the condition of any mark or marks of said cargo, unless the same have been received, classed, and inspected in Galveston, and have paid the full supervision and inspection fees imposed upon the local shipper.

RULES GOVERNING F.O.B. TRANSACTIONS.

RULE XV.

SECTION 1. When cotton is sold cost and freight compressed (landed Galveston compressed) to Galveston the price agreed upon in the contract shall be free of all port charges to seller. Exchange fees to be paid by buyer and seller as established by the Cotton Exchange.

SEC. 2. Unless otherwise stipulated, compressing shall be included in the free on board price.

SEC. 3. Unless otherwise stipulated, cotton shall be shipped from the interior within ten days from date of contract, and payment shall be made for such cotton, in full, on presentation of invoice and bills of lading. The surrender of the documents releases the seller from all liability on account of non-delivery by the transportation company or of loss by fire. It is to be understood that cotton sold for immediate shipment must be shipped within three days, and that cotton sold for prompt shipment must be shipped within ten days, both from date of contract and from points from which sales have been made, weather permitting and barring obstacles over which the interior shipper has no control, due proof of which shall be furnished to the buyer in Galveston. Failing shipment within the specified time, none of the above-mentioned obstacles having been encountered, it then becomes a question of delivery, and the local seller obligates himself to deliver the quantity and quality of cotton sold at the shipside in Galveston, within two weeks of the time at which it should have been shipped. In such case, the buyer shall not be compelled to pay the country draft, but shall pay for the cotton on satisfactory delivery, if made within the two weeks specified. Cotton sold for stipulated time delivery shall be subject to special agreement between buyer and seller.

SEC. 4. The responsibility of the Galveston seller for the fulfilment of contract shall depend upon his agreement with the buyer as expressed in the contract.

SEC. 5. All drafts for cotton sold " free on board " shall be accompanied by the entire set of bills of lading issued, unless the bank holding the draft for collection guarantees the production of the remaining bills of lading. Not more than four (4) bills of lading shall be tendered on any one lot or contract of one hundred (100) bales.

SEC. 6. Where the sale is for 100 bales or more, the seller shall not have the right of invoicing or drawing for less than fifty bales, unless remnant is in completion of the contract.

SEC. 7. Invoice shall be either attached to draft or forwarded by same mail as draft at latest.

SEC. 8. Samples shall be forwarded by express within four days after shipment of cotton.

SEC. 9. When f.o.b. cotton is sold on description, not less than seventy per cent. of the tender shall be of the contract grade, and all cotton tendered that is more than one-half grade below the contract grade may be rejected or accepted at the buyer's option at satisfactory allowances. Each mark of 100 bales, or less, to be considered a separate contract. Due allowances shall be made the buyer on all cotton found to be under the contract grade that may be tenderable, according to the above provision.

SEC. 10. Mixed packs shall be classed by the lowest grade in the bale. Fraudulent packs and plated bales shall be rejected. Country damaged cotton shall be put in order at the expense of the seller, unless the carrier can be proved at fault, when he shall be required to put cotton in order, he paying for all necessary expenses arising therefrom. In either case, if cotton arrives in improper or damaged condition, the buyer must notify the seller before cotton is forwarded.

SEC. 11. Notice of rejections under the foregoing sections shall be given to the seller by noon of the day following that on which the cotton is classed, and such rejections shall be invoiced back to the seller at the price of the grade sold. The seller shall at once reimburse the buyer, plus the charges of putting the cotton free on board, or replace the same by other cotton satisfactory to buyer.

SEC. 12. Arbitration as to class and staple shall be in accordance with the rules for spot cotton. Re-drawn samples must be submitted to arbitration with the usual allowance on compressed cotton of one-eighth of a cent. per pound for bloom and must be drawn from sample side or top of bale.

SEC. 13. Upon the arrival of cotton covered by one bill of lading same may be moved under agreement between buyer and seller, but the final settlement to be only after the arrival of the total quantity contracted for.

SEC. 14. All allowances and awards by arbitration shall be promptly paid.

SEC. 15. Weighing in Galveston shall be at the expense of the buyer, but if the seller wishes to test weights he can do so at his own cost.

SEC. 16. Compressed cotton sold free on board shall be weighed with an allowance to the seller of three pounds per bale on all bales having six bands. The allowance for extra or missing bands shall be at the rate of one and three-tenths ($1\ \frac{3}{10}$) pounds per band.

SEC. 18. All free-on-board cotton weighed here must be weighed by weighers appointed by the Governor of this State or their deputies.

SEC. 19. Unless otherwise stipulated, all cotton must be of fair colour and staple, and must be free from sand and dust; sandy cotton is subject to rejection.

THROUGH SHIPMENTS.

SEC. 20.—On all cotton sold through members of the Galveston Cotton Exchange on cost and freight terms to any other domestic or European market, the rules existing at place of destination shall govern, if nothing to the contrary is stipulated in contract.

NEW ORLEANS.

SALE AND DELIVERY OF SPOT COTTON.

Extracts from Charter, Constitution, By-laws, and Rules of the New Orleans Cotton Exchange. October, 1905.

REJECTIONS, BAGGING AND TIES.

CAUSES FOR REJECTIONS.

Rejections.

RULE 4. The buyer shall have the right to reject all seedy or falsely packed or mixed packed or rebaled cotton, unless it has been sold as such; also any cotton lower in grade than the lowest grade presented in the sellers' samples. No other cotton shall be rejected when equal in quality to the sample by which it has been sold, if the sample has been fairly exhibited.

COMPENSATION FOR GRADES ON AVERAGE PRICE.

Settlement of differences arising from rejections.

RULE 5. Where cotton of various grades has been sold at a uniform price, and the rejections are above the average grade of the list, the factor shall make good to the buyer the difference in value between the rejected bales and the average of the list, and where rejections are below the average of the list the buyer shall, in like manner, make good the difference in value to the seller. All such differences to be determined by the original samples of the seller.

LIGHT-WEIGHT BALES.

Weight of a merchantable bale.

RULE 6. Any bale of cotton weighing less than three hundred pounds shall be deemed unmerchantable, and may be rejected by the buyer.

NUMBER AND WEIGHT OF BANDS.

Number and weight of bands for each bale.

RULE 7. Six iron bands or ropes not exceeding in weight twelve (12) pounds in the aggregate, shall be considered sufficient for each uncompressed bale of cotton. Any excess shall, at the option of the buyer, be removed from the bale or be deducted from the gross weight. If a bale has less than six bands allowance shall be made to the seller, the bands to be put on by the press at the expense of the seller.

Where compressed bales are sold as spot cotton and have seven (7) bands, no deduction is to be made for the seventh band, and three (3) pounds are to be added to the gross weight of the bale, the same as in the Free on Board Rules.

MEASURE AND WEIGHT OF BAGGING

Weight and size of bagging.

RULE 8. Seven yards of bagging weighing two and one-quarter pounds per yard shall be considered the maximum amount of bagging used to cover any bale of cotton.

UNNECESSARY BAGGING.

Unnecessary bagging.

RULE 9. All bagging not absolutely essential to cover and protect the contents of the bales in a proper manner shall be deemed unnecessary, and shall, at the option of the seller, either be removed from the bales before they are weighed, or a fair and equitable deduction shall be made for the weight of such bagging; all such unnecessary bagging, when removed, to be the property of the seller.

Measure for side pieces.

The usual side pieces, which should each consist of no more than a single half width of bagging, running the length of the bale, will not be considered unnecessary bagging, and shall not be removed without the authority of the parties in interest. The

Chief Supervisor's duty.

Chief Supervisor shall report all infringements of this rule to the Exchange and the parties in interest.

UNMERCHANTABLE BAGGING.

Unmerchantable bagging.

RULE 10. All flax bagging *filled with shives*, and all other bagging which, when wet, will stain cotton, shall be considered unmerchantable; and all cotton covered therewith shall be re-covered with merchantable bagging at the expense of the seller.

GUARANTEE OF MERCHANTABLE CONDITION.

Merchantable condition and good order for immediate shipment considered guaranteed. Buyers' rights in premises.

RULE 11. All sales of cotton, unless otherwise provided for at the time of sale, shall be deemed to have been made under a guarantee of its being in merchantable condition and in good order for immediate shipment. Buyers shall have the right to reject any cotton delivered in bad order or in a damaged condition, unless it can be put in order upon the day of delivery . . . . . provided the vessel to which it is ordered is to sail that day; in other cases it may be delivered within the two following days.

WEIGHING AND RE-WEIGHING.

DUTIES OF FACTORS' AND BUYERS' WEIGHERS.

Governing conduct of factors' and buyers' weighers.

RULE 15. The sellers' weigher shall not weigh any cotton for delivery without the presence of the buyers' re-weigher, unless he shall have first given notice to the buyers' re-weigher, or to the buyers' classer, of his readiness to weigh the same at a time which he shall specify; should the buyers' re-weigher fail to be present at the time specified in said notice, a further delay of two hours shall be allowed, at the expiration of which time the sellers' weigher may proceed with the weighing of the cotton without the presence of the buyers' re-weigher.

ALLOWANCE FOR WET OR DAMP COTTON.

Allowance in weighing for wet or damp cotton.

RULE 16. In all cases where wet or damp cotton is tendered for delivery, and the weigher and re-weigher can not agree as to the proper allowance to be made for the same, the buyers' re-weigher shall have the right to demand that such cotton shall not be weighed until it becomes dry.

Allowance for compressed cotton.

In deliveries of compressed cotton, three pounds per bale shall be added to the New Orleans weights.

TESTING SCALES.

Chief Supervisor to test scales.

RULE 17. The Chief Surveyor shall test weighers' scales whenever, in his opinion, it shall be necessary to do so.

RECLAMATIONS.

CLAIMS FOR IRREGULARITIES—FALSELY PACKED COTTON.

Fraudulently packed cotton.

RULE 18. After cotton has been examined, received, and passed upon by the broker or other agent of the buyer, no claim shall be made upon the seller except for fraudulent or false packing, and the allowance provided for in Rule No. 5.

Falsely or fraudulently packed cotton shall be defined as follows: Such bales as may contain any foreign substance, water-packed bales, or bales containing damaged cotton in the interior, without any indication of such damage upon the exterior of the bale; also such bales as are plated, *i.e.*, composed of good cotton upon the exterior and decidedly inferior cotton in the interior of the bales, in such manner as not to be detected without opening the same.

FORMS FOR RECLAMATIONS.

Claims for fraudulent packing.

RULE 19. When claims are made they shall be in writing, giving the shipping marks and numbers, also the planter's and all other legible marks; and a separate certificate shall be given for each bale, except where two or more bales bear the same planter's marks. The certificates shall also state the particulars of the fraudulent or false packing, and shall be verified by oath or affirmation.

LIMIT OF TIME.

Limit of time for claims against sellers.

RULE 20. In all cases where cotton is restored and held in this city, such claims shall be good against the seller for 100 days from date of sale, and where the cotton has been exported to a foreign or domestic port the certificate and claim shall be dated within 100 days from the date of the arrival of the vessel carrying such cotton at her port of destination, and presented to the seller here, if from Europe, within thirty days, and if from the North, within ten days from date of claim.

ARBITRATIONS ON RECLAMATIONS.

Claims made out as prescribed hold good unless decided against by Arbitration Committee or Board of Appeals.

RULE 21. All claims made out in conformity with the foregoing regulations shall be deemed *prima facie* valid in favour of the claimant, and can only be defeated by a decision of the Committee on Arbitration, or of the Committee of Appeal of this Exchange.

LEVEE INSPECTION.

DAILY REPORTS.

Daily reports of Levee Inspectors.

RULE 4. The Chief Supervisor and Assistant Levee Inspectors shall keep a record of the weather, also of the condition in which cotton is delivered to the various vessels; they shall also keep a record of the condition in which cotton is taken on board specifying whether the same was taken on board in a wet or in a dry condition, and if wet, they shall specify whether the same was received wet or became so by being exposed to rain upon the levee, or by being rolled through the mud. They shall make daily reports embodying all particulars, which reports shall be kept on file and shall be entered up in a book to be kept for that purpose by the Superintendent of the Exchange.

DECK LOADS AND RECEIPT ON SHIPBOARD OF COTTON IN BAD CONDITION.

Notification to masters of vessels of risk of loading cotton in bad condition, &c.

RULE 5. They shall in all cases, where cotton is being taken on board in such condition as to render it liable to become damaged upon the voyage, or to damage other cotton by contact, notify the master of the vessel of the impropriety and risk of taking cotton on board in such condition. They shall also report all cotton carried on deck by any vessels leaving this port.

RULE 6. Steamers landing cotton on the levee beyond the wooden wharves shall be required to place the same upon skids, so as to prevent its coming in contact with mud or water, and it shall be the duty of the Chief Supervisor and of his assistants to report all violations of this rule.

CERTIFICATES OF CONDITION TO BE FORWARDED TO PORTS OF DESTINATION.

Certificate to be forwarded to ports of destination of vessels.

RULE 7. It shall be the duty of the Chief Supervisor when a vessel clears at the custom house to draw up a certificate setting forth the condition in which her cargo was taken on board; and it shall be the duty of the Secretary of the Exchange to countersign such reports and affix thereto the seal of the Exchange. The Secretary shall forward such certificate to such person or association, at the port of destination, as the President or the Board of Directors may direct.

MASTERS REFUSING REPORTS OF RECEIPTS, ETC.

Vessels refusing facilities to Levee Inspectors.

RULE 8. It shall be the duty of the Chief Supervisor to report all vessels whose masters refuse to furnish daily reports of cotton received, or who may refuse proper facilities to the Levee Inspectors for the performance of their duties; and the Secretary of the Exchange shall post upon the Exchange boards the names of all vessels so reported; he shall also note all such cases upon the reports forwarded to the ports of destination of such vessels.

CERTIFICATE OF COTTON UNFIT FOR SHIPMENT.

Certificate relating to cotton taken on board when unfit for shipment.

RULE 11. In any case where cotton has been taken on board of a vessel in condition unfit for shipment, any shipper by said vessel shall receive, if he so requires, a special certificate from the Exchange, setting forth the facts of the case, said certificate to be verified by oath or affirmation of the Inspector in charge of said vessel. Shippers requiring special certificates shall pay all expenses incurred under this rule.

RULES RELATIVE TO STANDARD OF COMPRESSING, INSPECTION OF COMPRESSED BALES, AND ARBITRATION COMMITTEE ON SHIPPING.

Standard of compressing.

RULE 1. The standard of compressed cotton shall not be less than 22½ pounds to the cubic foot, measurement on wharf or alongside of vessel.

Bands on bales.

RULE 2. Cotton bales shall be delivered to vessel with not less than six bands, and in proper shape; the bands shall be placed at about equal distance from each other, the end bands not to exceed eight inches from end of bale.

Measurements —How taken.

RULE 3. The following rule shall be strictly adhered to in measuring a bale of cotton. Measurements shall be taken on the bands for width and thickness, and from both ends of the bale for length.

Notice of condemnation.

RULE 4. The ship agent finding cotton to be badly compressed, in accordance with the preceding rules, shall at once notify the shipper, who, within two (2) hours of receipt of such notification (always provided during ordinary business hours), shall be bound to signify his acceptance of condemnation or to name an inspector mutually agreeable to himself and the ship agent, whose decision shall be final. The cost of re-inspection, when demanded by the shipper, shall be borne by the party at fault.

Cost of inspection.

Allowance for badly pressed bales.

RULE 5. On all cotton condemned as badly compressed under the preceding rules, the shipper shall pay to the ship as follows:—

For each bale of a density of 20 pounds or over, but under 22½ pounds per cubic foot, 12 cents per bale.

For each bale of a density of 18 pounds or over, but under 20 pounds per cubic foot, 40 cents per bale.

For each bale of a density under 18 pounds per cubic foot, 50 cents per bale.

Proviso.

Provided that either ship or shipper shall have the option, instead of settling at above allowances, of recompressing at shipper's expense all bales of a density of less than 20 pounds per cubic foot, except in cases where cotton is delivered to vessel on the day it finishes loading, in which case the ship shall have the right to put the cotton on board without recompressing and collect from the shipper according to above schedule.

Hand-tied bales.

RULE 6. Hand-tied bales shall not be rejected except for density.

Inspectors to be sworn, and certificates under oath.

RULE 7. The inspectors of the ship agents, whether employes of the Maritime Association or not, shall be sworn to a fair and impartial performance of their duties, and all certificates issued by them shall be under their oaths as sworn inspectors. And the shipper or his representative shall have free access to the records of the agents' inspectors.

New Orleans Cotton Exchange.

Rules Governing f.o.b. Business as amended up to and including November 27th, 1905.

RULE A.

SECTION 1. When cotton is sold to be delivered "free on board" New Orleans, the price agreed upon in the contract shall include the freight to New Orleans and drayage from railroad depôt to shipside, but shall be exclusive of insurance, if shipped by railroad, and of the Cotton Exchange supervision and levee inspection fees at this port. Freight and drayage on cotton sold as above shall be deducted from invoice and shall be paid by the buyer.

RULE B.

Unless otherwise stipulated, compressing shall be included in the f.o.b. price.

RULE C.

Unless any special time is agreed upon between the buyer and seller, all cotton sold "free on board" shall be shipped from the interior point at which it is purchased within ten (10) days from the date of contract, weather permitting, and barring obstacles over which the interior shipper has no control, due proof of which shall be furnished to the buyer in New Orleans. Failing shipment within the specified time, none of the above-mentioned obstacles having been encountered, it then becomes a question of delivery, and the local seller of "free on board" cotton obligates himself to deliver the quantity and quality of cotton sold at ship's side in New Orleans within two (2) weeks of the time at which it should have been shipped. In such case the buyer shall not be compelled to pay the country draft, but shall pay for the cotton on satisfactory delivery, if made within the two weeks specified.

RULE D.

Sellers of cotton to be delivered "free on board" shall be responsible in every respect for the proper fulfilment of all contracts, whether the name of the interior shipper be stated in the contract or not.

RULE E.

All drafts for cotton sold "free on board" shall be accompanied by the entire set of bills of lading issued, unless the bank holding the draft for collection guarantees the production of the remaining bills of lading. Not more than four (4) bills of lading shall be tendered on any one lot of one hundred (100) bales.

RULE H.

When " free on board " cotton is sold on description, not less than one-half of the tender shall be of the contract grade, and all cotton tendered that is more than one-half grade below the contract grade may be rejected.

Due allowance shall be made the buyer on all cotton found to be under the contract grade that may be tenderable according to the above provision. And the expense of re-sampling rejections shall be paid by the seller.

When " free on board " cotton is sold on samples it shall be optional with the buyer whether he rejects or accepts with an allowance any bales tendered which were not represented in the original samples.

RULE I.

Any rejection made under the above rule shall be replaced immediately by the local seller with cotton ready for delivery; in default of which the buyer, after giving due notice, may replace for account of the local seller, settling with him for any difference between the contract price and the cost price " free on board " here.

This rule shall apply to all cotton sold on type or actual samples.

RULE J.

Cotton rejected shall be invoiced at contract price back to the local seller, who shall at once reimburse the buyer the amount of invoice plus all valid charges incurred.

RULE L.

All allowances awarded in New Orleans shall be promptly paid by the loser, and all other undisputed claims shall be paid within fourteen days from date of presentation. Where cotton is weighed, sampled, or inspected in New Orleans, all claims shall be presented within ten days after delivery is completed or after arbitration is settled.

RULE M.

SECTION 1. Cotton sold free on board, guaranteed through, on samples, shall be guaranteed by the seller to turn out at port of discharge equal in all respects to the samples, with allowance of one-sixteenth (1/16) cent per pound on samples drawn from compressed bales on cotton grading between middling and good middling, both inclusive, and one-eighth (1/8) cent per pound on grades below middling and above good middling.

SEC. 2. The f. o. b. seller shall guarantee the gross landing weight to be within one per cent. of the gross invoice weight. Any excess of bands over nine hundred (900) pounds for each one hundred (100) bales of cotton to be deducted from landing weight; allowance to be made for missing bands and ship-pickings.

SEC. 3. Provided that if either the buyer or seller of guaranteed through cotton shall have good cause to suspect serious irregularities in any lot of cotton, that after notifying the other party in interest, the cotton shall be re-weighed or re-sampled, or both, in New Orleans, by a weigh-master or sampler, or both, appointed by the Exchange.

If the cotton turns out to have been fraudulently shipped, the seller shall pay all expenses, including weighing, sampling, inspecting, &c., and settlement shall be made as in the case of cotton sold for examination here; if it turns out otherwise, it shall take the original course intended, and all expenses shall be paid by the party demanding the examination.

SEC. 4. The buyer shall have the right to claim settlement for any difference on samples drawn as above, with the same allowance of one-sixteenth (1/16) cent. per pound for compressed samples on grades from middling to good middling, both inclusive, and one-eighth (1/8) cent per pound on grades below middling and above good middling.

SEC. 5. Compressed cotton, re-weighed in New Orleans, shall have three (3) pounds per bale added to New Orleans weights, allowing seven (7) bands of the usual weight of one and three-tenths (1 3/10) pounds per band to the bale, and final settlement shall be on these weights, irrespective of country invoice, the differences to be paid to or collected from the seller by the buyer. Samples and loose shall be paid for by the buyer.

Uncompressed cotton to be settled for as above, without any allowance for loss in weight.

SEC. 6. Cotton re-weighed at mill point in the United States shall be allowed for at the rate of five (5) pounds per bale for compressed and three (3) pounds per bale for uncompressed cotton.

SEC. 7. Sellers shall be relieved of any further responsibilities should cotton be re-weighed and re-sampled in New Orleans, except in cases of fraudulently packed cotton, which shall be governed by Rule N, Sec. 2.

SEC. 8. When cotton is re-sampled or re-weighed here without the knowledge of the seller, no claim shall be allowed.

SEC. 9. All cotton bought on one contract, if shipped by the exporter under one contract, shall be subject to one weight settlement. If shipped by the exporter under several contracts, weight settlements shall be made on each contract.

SEC. 10. Claims for loss in weight from Liverpool must be accompanied by certificate of landing weights, signed by the master porter or other proper official, and similar claims from other ports must be certified to by the proper officials at such ports.

SEC. 11. When the loss in weight on cotton sold on guaranteed through terms amounts to more than two (2%) per cent. of the invoice weight, the seller shall refund to the buyer the ocean freight and insurance on the loss in weight above the usual one (1) per cent. franchise.

RULE N.

SECTION 1. All claims for loss in weight shall be forwarded from Europe within twenty-eight (28) days, and for deficiency in grade within forty (40) days after discharge of vessel at point of destination, and must be presented to seller within twenty (20) days thereafter; otherwise, such claims shall not be binding on the seller.

SEC. 2. Claims for fraudulently packed cotton shall be made in accordance with Rule 18, governing transactions in spots which reads as follows :—

" Falsely or fraudulently packed cotton shall be defined as follows : Such bales as may contain any foreign substance, water-packed bales, or bales containing damaged cotton in the interior, without any indication of such damage upon the exterior of the bale, also such bales as are plated, *i.e.*, composed of good cotton upon the exterior and decidedly inferior cotton in the interior of the bales, in such manner as not to be detected without opening the same."

All claims as above shall be accompanied by duly certified vouchers setting forth in full the grounds on which the claim is based.

SEC. 3. In claims on f.o.b. guaranteed through cotton for grade, six (6%) per cent. shall be deducted from the gross invoice weight when the cotton has been shipped on C. F. and 6 per cent. or C. I. F. and 6 per cent. terms, but not otherwise.

RULE O.

Barring obstacles over which the buyer has no control, due proof of which shall be furnished, cotton to be weighed in New Orleans shall be weighed within seven (7) working days after arrival, failing which, after three (3) days' notice, the seller shall be released from all responsibility, and cotton sold on guaranteed through terms, ship-side New Orleans, shall be shipped within twenty (20) days after notice of arrival, otherwise seller shall not be responsible for any loss in weight.

RULE Q.

When arbitration is held abroad on guaranteed through cotton, the fees shall be paid as is customary in the market in which the arbitration is held.

RULE R.

Cotton sold f.o.b. for examination in New Orleans shall be weighed in accordance with Rule 15 of the spot rules.

LITTLE ROCK.

Rules and Regulations Governing the Sale and Transfer of Cotton, as Adopted by the Little Rock Board of Trade, 1903.

RULE 1. All resampling, or examination by boring, shall be performed after the cotton shall have been weighed.

RULE 2. All cotton must be examined and received by the purchaser before removal from its place of storage.

RULE 3. The seller of cotton is entitled to his samples, but where required by the buyer, shall allow him to take them to his office for the purpose of comparison, and when that is done, shall return them, and a failure to do so will forfeit his right in the future to remove them from the office of the seller.

RULE 4. Three hundred pounds shall constitute the minimum weight of a merchantable bale of cotton, and the buyer shall have the

right to reject all bales below that weight, but if received, an allowance of $3 per bale shall be made to the buyer.

RULE 5. Six ties only shall be permitted on each bale, unless an allowance is made of two pounds for every tie above that number.

RULE 6. All seedy, mixed, fraudulently packed, and damaged cotton may be rejected, and cotton sold by samples must be delivered accordingly, unless rejected for causes above stated.

RULE 7. All cotton shall be understood to be in good order; but if not, it shall be repaired within twenty-four hours from the time of delivery, and if not done within that time, the necessary repairs may be made by the buyer at the expense of the seller. No claims for repairs shall be allowed after the removal of the cotton from its place of storage.

RULE 10. All cotton covered with bagging composed wholly or in part of any material which, when wet, stains the cotton, or is filled with unrotted shives or splinters, shall be considered unmerchantable and subject to a rejection at the direction of the purchaser.

RULE 11. All bagging not absolutely essential to cover and protect the contents of the bales in proper manner, shall be deemed not necessary, and shall be removed from the bales before they are weighed, or a fair and equitable deduction shall be made for the weight of such bagging; all such unnecessary bagging when removed, to be the property of the seller.

The usual side pieces, which should each consist of no more than a single half-width of bagging, running the length of the bale, will not be considered unnecessary bagging, and shall not be removed without the authority of the parties in interest.

Rule 12. It shall be the duty of all parties in a matter of dispute relating to the sale and delivery of cotton, to report the case to the arbitration committee within seven days after the matter in controversy arises; otherwise, they would be barred by limitation.

RULE 13. All free-on-board cotton for shipment to Little Rock is to be weighed as soon as practical after its arrival, and in case of any discrepancies between invoice weights and reweights, the shipper is to be furnished promptly with statement of any such discrepancies for which he is liable. However, the seller has the right to have the cotton reweighed at his own expense within forty-eight hours from the time claim is made.

RULE 14. Country damaged cotton, *i.e.*, cotton damaged by water, mud, or in any way unmerchantable or in bad condition, will be put in order at the expense of the shipper.

RULE 15. Where transactions in round lots are made, without reference to samples, the buyer has the right to reject all fraudulently packed cotton, in the same manner as described in Rule 6.

RULE 16. All cotton bought in Little Rock shall be subject to a fine of $1 per bale when wrapped with ties in excess of forty-five pounds weight to the bundle.

MEMPHIS.

Charter, Constitution, By-Laws, Rules and Regulations, 1901.

RULE 1. All re-sampling, or examination by boring, shall be performed after the cotton shall have been weighed.

RULE 2. All cotton must be examined and received by the purchaser before removal from its place of storage.

RULE 4. Three hundred pounds shall constitute the minimum and six hundred and seventy-two pounds the maximum weight of a merchantable bale of cotton, and the buyer shall have the right to reject all bales below three hundred pounds or above six hundred and seventy-two pounds; but if the light bales be received an allowance of $3 per bale shall be made to the buyer.

RULE 5. Six ties only shall be permitted on each bale, unless an allowance is made of two pounds for every tie above that number.

RULE 6. All seedy, mixed, fraudulently packed and damaged cotton may be rejected, and must be done at its relative value in the list purchased, but the grade of the cotton by marks shall be given to the buyer at the time of sale, or before the day of delivery, if required by him, and cotton sold by samples must be delivered accordingly unless rejected for causes above stated.

RULE 7. The practice of examination by boring cotton, which prevails in this market, before passing of same, is understood to be the rule as to the manner of receiving, and relieves the seller from any liability for reclamation on mixed, fraudulently packed, or damaged cotton.

RULE 8. All cotton shall be understood to be in good order; but if not, it shall be repaired within twenty-four hours from the time of delivery, and if not done within that time, the necessary repairs may be made by the buyer at the expense of the seller. No claims for repairs shall be allowed after the removal of cotton from its place of storage.

RULE 9. All cotton shall be received within five working days from date of sale. The weighing and examining of cotton shall constitute (as to bales not rejected) a confirmation and completion of the sale, but it shall not be removed from the place of storage without the consent of the factor until payment has been made; but whether so removed or not the title to the cotton shall remain with the seller, as security for the price, as against the buyer and all claiming under him, until payment has been made. The risk of loss by fire or other accident shall be that of the seller until the buyer has paid for the cotton as long as it remains in the warehouse of the seller, public or private, but from the time of such payment or removal from the said warehouse the risk of loss shall be that of the buyer.

RULE 11. All cotton covered with bagging composed wholly or in part of any material which, when wet, stains the cotton, or is filled with unrotted shives or splinters, shall be considered unmerchantable and subject to a rejection at the discretion of the purchaser.

RULE 12. It shall be the duty of the warehouseman to keep a book of record, which shall be open to inspection, of the weight of all

loose cotton and borings taken from each lot of cotton; also the number of bales from which the cotton is taken, and to furnish the buyer a certificate giving number of sacks and weight of same. None of said loose cotton shall be taken from the warehouse unless accompanied by said certificate. He shall protect all cotton belonging to the buyer while remaining in the warehouse. He shall also protect cotton belonging to the factor, and shall allow no cotton belonging to him to be removed except upon his written order.

RULE 14. All cotton sold in this market shall be delivered to the buyer in the seller's warehouse, under cover, and can only be delivered in open warehouse, or elsewhere, on condition that it is protected from rain and mud by the use of skids and tarpaulins, the condition of the weather and ground requiring it, during the process of delivery and till removed; the time for removal in no case to exceed twenty-four hours. The buyer is required to remove his cotton as soon after delivery as possible, and if he neglects or fails to do so within the time mentioned he shall, on demand, pay to the seller three (3) cents per bale for every day or fractional part of a day the cotton is left with the seller in excess of twenty-four hours after delivery.

RULE 15. All bagging not absolutely essential to cover and protect the contents of the bales in a proper manner shall be deemed unnecessary, and shall be removed from the bales before they are weighed, or a fair and equitable deduction shall be made for the weight of such bagging; all such unnecessary bagging, when removed, to be the property of the seller. The usual side pieces, which should each consist of no more than a single half-width of bagging, running the length of the bale, will not be considered unnecessary bagging, and shall not be removed without the authority of the parties in interest

RULE 16. Sellers in this market shall not sell cotton to buyers who are not members of the Exchange, and buyers shall not buy from sellers who are not members of the Exchange. Cotton must be billed to a member, and payment for same also made by a member, and it shall be obligatory on the buyer to see that payment is made in his name. A violation of this rule, on conviction, shall incur a penalty of not less than $50, or more than $250, or suspension for thirty days, at the discretion of the Board of Directors. For a second violation in the same season, on conviction, the penalty shall be expulsion, as provided for under Article IX., Section 1, of the Constitution. This rule does not apply to wagon cotton for sale on the streets.

RULE 17. All cotton that is stored by the factor on the streets or not under roof cover, shall be required to be thoroughly protected by tarpaulins and by the use of skids sufficiently large to protect the cotton from mud and water, and to allow of the passage of air underneath.

RULE 18. Every cotton warehouse and compress shall apply to the Cotton Exchange for a license to do business. Upon satisfactory evidence that said warehouse or compress is sufficiently supplied with skids and tarpaulins for the proper protection of cotton while stored or in the course of delivery, the Secretary of the Exchange shall issue a license. No factor shall store cotton in, nor shall a buyer receive cotton from, an unlicensed warehouse or compress. If complaint is

made that cotton is being damaged in a licensed warehouse or compress by the weather, owing to a lack of skids and tarpaulins, the complaint shall be filed with the Board of Directors, who shall hear the evidence in the matter, and if the charge is substantiated they may, in their discretion, order the license of said warehouse or compress annulled.

RULES OF THE SAVANNAH COTTON EXCHANGE.

Extract from the Charter, By-laws, and Rules of the Savannah Cotton Exchange. April 19th, 1906.

RULE 8. (a) In cotton tendered for delivery, buyers shall be entitled to reject, at their option, any bale, which is light weight, gin cut, seedy, cock-spurry, mixed packed, damp packed, water packed, damaged, or which contains any foreign substance, or is covered with bagging which could injure the cotton, or which is in unmerchantable order.

(b) Bales rejected for any of the causes enumerated in Paragraph A, Rule 8, shall not be replaced.

(c) Any bale, which weighs less than three hundred pounds, shall be deemed a light weight.

(d) Any bale containing different qualities of cotton, shall, when any of it is a full half-class below sample, by which the cotton was sold, be deemed mixed packed, except in the case of cotton classing Good Ordinary, or below, which shall not be deemed mixed packed, unless the mixture be of blue and red cotton, or the poorest sample be a full class below sample, by which it was sold.

(e) Any bale containing cotton ginned while damp, and showing such an amount of dampness through the bale, as to indicate that the cotton in the bale will become damaged from such cause, shall be deemed damp packed.

(f) Any bale damaged to such an extent that the damage cannot be removed within a reasonable time, and the bale restored to merchantable condition, shall be deemed damaged.

RULE 9. An uncompressed bale of cotton shall have six, and a compressed bale shall have eight, iron bands. In either case, the aggregate weight of bands shall not exceed twelve pounds. Any excess shall be deducted from the gross weight of the bale.

RULE 10. (a) Cotton shall always be weighed with a rising beam.

(b) Seven yards of bagging weighing not over two and one-quarter (2¼) pounds per yard shall be considered the maximum amount of bagging used to cover any bale of cotton.

All bagging not absolutely essential to cover and protect the contents of the bales in a proper manner shall be deemed unnecessary, and shall, at the option of the seller, either be removed from the bales before they are weighed, or a fair and equitable deduction shall be made for the weight of such bagging; all such unnecessary bagging,

when removed, to be the property of the seller. The usual side pieces, which should each consist of no more than a single half width of bagging, running the length of the bale, will not be considered unnecessary bagging and shall not be removed without the authority of the parties in interest.

RULE 11. (a) Any bale containing any foreign substance, or damaged, or decidedly inferior cotton so located in the interior of the bale as not to be detected in a careful examination of the bale by sampling, shall be deemed fraudulently packed.

(b) Reclamations on fraudulently packed bales shall be allowed, if presented to the seller within three (3) months from date of delivery of the cotton in Savannah; provided, that the proofs furnished are satisfactory to a Committee of Arbitration, called to consider them, or in case of an appeal, are satisfactory to the Board of Appeals.

(c) Any bale detected as fraudulently packed, within three (3) months after delivery, and before leaving Savannah, shall be returned to the seller, who shall refund its cost to the buyer.

RULE 12. (a) The standard for compressed cotton (Sea Island excepted) received at Savannah shall be :—

1. That each bale be bound with at least eight (8) bands.

2. Bagging on ends sewed.

3. That the density be not less than twenty-two and one-half (22½) pounds per cubic foot, as measured from end to end and over the bands. All quotations of freight rates to be based upon this density, unless it is specifically agreed to the contrary.

(b) Sworn inspectors shall be appointed by the Cotton Exchange for the purpose of determining whether or not compressed cotton received at Savannah is in a proper shipping condition.

(c) Each inspector shall be made a sworn weigher and inspector under the law, and shall act under the direction of the Cotton Exchange.

(d) 1. Cotton received over the rail lines for export, shall be inspected before delivery has been made to lighter or ship.

2. Cotton received over the rail line for delivery to City warehouses shall be inspected at time of delivery to warehouse.

(e) Whenever rail cotton, that is, compressed cotton brought in by the rail lines, is rejected by a sworn inspector as not being in proper shipping condition, immediate notice must be given to the carrier, with a request that the cotton be put in a proper shipping condition, which shall be done at the expense of the carrier, provided the conditions existing between the railways and compresses, as below, are complied with. Under the *new bond* given to the railroads by the presses, this language is used : "Will re-imburse the railway for any and all expenses incurred in putting in proper shipping condition cotton received at port from Compress Company, with heads open, bands off, or insufficient density, provided such expenses are incurred and bills rendered to the Compress Company, or it notified, within sixty days after the cotton has been unloaded at the port."

(f) Inspector's certificates showing defects, or the weights and measurements, as the case may require, must be promptly furnished

to the carrier for any rail cotton rejected, as not being in a proper shipping condition.

(g) Cotton reaching the required density under these rules shall not be recompressed.

(h) The expense of this inspection shall be borne by the Savannah ship brokers and the coastwise lines by an assessment to be made by the Cotton Exchange of one (1) per cent. per bale on all cotton forwarded from the port.

NOTE: The Cotton Exchange assumes no responsibility for cost of recompressing, the work being done for the benefit of the ship brokers. Any cotton therefore that is recompressed not covered by the provisions of these rules must be paid for by the ship broker having it done.

RULE 13. Cotton loaded on lighters for transfer to ship's side, shall be considered as a Marine Insurance risk.

RULE 54. When cotton of various grades is sold by sample, at an average price, and for proper causes rejections are made, and such rejected bales are from the grades better than the average, the seller shall make good to the buyer the difference in value; and if the rejections are made from grades below the average, the buyer shall make good to the seller the difference.

RULE 58. All sales of spot cotton in square bales (Sea Island excepted) shall be based on packages of standard size, (twenty-four (24) by fifty-four (54) inches), and when bales of other dimensions are tendered for delivery, an allowance of twenty-five (25) cents per bale shall be made to the buyer by the seller on such cotton.

RULES GOVERNING F.O.B. BUSINESS.

RULE 101. (a) When cotton is sold to be delivered "Free on Board" at Savannah, the price agreed upon in the contract shall include all charges, compressage included, as far as the buyer is concerned, and the seller shall deliver the cotton alongside the outgoing vessel; provided, however, that the said price shall be exclusive of insurance.

RULE 102. (a) Unless any special time is agreed upon between the buyer and seller, all cotton sold f.o.b. shall be shipped from such interior points of shipment as are contemplated by terms of sale within ten (10) days, and documents mailed for Savannah within thirteen (13) days and presented to buyer for payment within sixteen (16) days from the date of contract. Failing compliance with these requirements within the specified time, it then becomes a question of delivery, and the seller obligates himself to deliver the quantity and quality of cotton sold, at shipside in Savannah, within eighteen (18) days from the date of the contract. In such case the buyer shall not be compelled to pay the country draft, but shall pay for the cotton upon satisfactory delivery shipside, if made within the time specified.

(b) When time of delivery has expired, and the cotton does not arrive by noon of said day, the seller shall have twenty-four (24) hours, in which to substitute cotton of equal quality and character. Should he fail to substitute such cotton within time named, the contract shall be closed, and settlement made at the difference between price of sale

and value of cotton of equal quality and character, deliverable at ship's side within twenty-four hours, and the seller shall also pay to the buyer a penalty of one-eighth ($\frac{1}{8}$) cent. per pound.

(c) When contracts are closed in this manner, the weight per bale shall average five hundred (500) pounds.

RULE 104. (a) F.o.b. Cotton shall be shipped in lots of fifty (50) or one hundred (100) bales of the same grade. On basis contracts for Savannah settlement any number of bales of any grade contemplated by the contract may be shipped. On basis contracts sold with through guarantee as specified hereafter in Rule 105, paragraph (a), cotton shall be shipped in lots of fifty (50) or one hundred (100) bales of full or half grades.

(b) No drafts need be paid against uncompleted marks.

RULE 105. Cotton sold f.o.b. shall be sold either,

(a) On through guarantee of class and weight on arrival at an American or European port or at an American mill. Weights at point of destination shall hold out within one (1) per cent. gross landing weight against gross invoice weight, and in case the loss in weight on any lot exceeds two (2) per cent. as compared with invoice weight, the buyer shall be entitled to claim from the seller the loss in ocean freight, which the loss in weight in excess of one (1) per cent. may involve, or,

(b) For Savannah settlement, viz. : For class and weight guaranteed at Savannah and examination in Savannah : in such case, redrawn samples shall equal grade guaranteed, and seller's guarantees as to quality and weight shall cease upon acceptance by the buyer.

RULE 106. Unless differently stipulated, cotton sold on class shall be required to be even running and for grades of Middling and above "Good colour and good staple"; for grades below Middling, " Fair colour and good staple " ; for coloured cottons, " Good Staple."

In Savannah settlement even running grades shall be such as contain not more than ten (10) per cent. of falling off bales, offset by an equal number of better bales ; such falling off bales shall not be more than one-half ($\frac{1}{2}$) class below class sold.

RULE 107. When cotton is sold f.o.b. under terms of Rule 105, Paragraph A, it shall be considered as subject to arbitration in Liverpool or Bremen, unless it by a special stipulation of contract has been sold as American class, in which case it is to be subject to arbitration in New York.

RULE 108. When cotton is sold for Savannah settlement, arbitration shall be on Liverpool classification. If the cotton does not pass for the grade sold, and the difference does not exceed one-half grade ($\frac{1}{2}$) from the guaranteed grade the seller shall have the option of tendering the cotton in question with the allowance fixed by the arbitration, and paying in addition thereto a penalty of one-eighth ($\frac{1}{8}$) of a cent per pound, or of replacing with proper grade within the time allowed by the original contract. In such case seller shall take up documents within twenty-four hours, reimbursing buyer for amount of draft paid by him. Any portion of a lot passed by arbitration may be used in making the second tender.

RULE 109. In all arbitrations, based upon samples drawn from compressed bales, proper allowance shall be made for deterioration in appearance caused by compression, unless the seller claims the privilege of having samples exposed for twenty-four (24) hours previous to arbitration.

RULE 110. F.o.b. cotton, sold under terms of Rule 105, Paragraph B, shall be weighed and sampled within seven (7) days after arrival of each complete mark, weather permitting.

RULE 111. When cotton is sold f.o.b. under terms of Rule 105, Paragraph B, the buyer shall give notice to seller's agent in Savannah at least twenty-four (24) hours previous to its examination. When cotton is examined in Savannah without the knowledge of the seller, no claim shall be allowed for loss in weight nor for difference in quality.

RULE 112. When cotton is sold under terms of Rule 105, Paragraph B, the charge made by the railroad for handling shall be divided equally between the buyer and seller.

RULE 113. If cotton is sold in accordance with stipulation of Rule 105 (a) and if at the time when steamer or vessel, to which such cotton is transferred, is about ready to sail, any odd bales, not exceeding twelve and one-half (12½) per cent. of the total of one mark of a lot have not arrived, then the buyer shall notify seller or his broker by telegraph of such fact, and if seller by ten (10) o'clock next day does not notify buyer that he will replace such bales by two (2) p.m. of the same day, then buyer shall replace such bales for seller's account, furnishing seller with sworn weigher's and classer's certificate for the bales thus bought.

At seller's choice, the buyer shall either draw on seller for cost of such replaced bales attaching railroad due-bill for the delayed bales, or he shall collect from the railroad the value of such delayed bales and settle with seller for the cost of the replaced bales on the basis of such collection.

RULE 114. On cotton sold under terms of Rule 105 (a), seller's guarantee as to outturn of weight and quality shall apply to each mark separately.

RULE 115. On cotton sold under terms of Rule 105 (a), claims for loss in weight at point of destination shall be based on returns made in accordance with the customs prevailing at such destination, taking into consideration customary allowances for damp, wet, damage, extra tare, &c., and must be substantiated by certificates from a party or parties having authority at points of destination, to issue such certificates. Extraordinary expenses involved, according to rules in force at point of destination, in ascertaining excessive dampness or excessive tare are to be paid by seller.

RULE 116. If cotton is sold under terms of Rule 105 (a) sellers shall have the privilege of appointing agents at points of destination, to superintend weighing, sampling, and sealing of samples in their behalf, giving notice thereof on or before the day on which they render invoices; but such notice given in the course of one season shall not apply the next season, unless especially renewed.

If sellers take advantage of this privilege, then it shall be the duty of the buyers' representatives at points of destination to give due notice to sellers' agents, so that they may act in the premises in accordance with the local customs. Failing such notice, all claims for loss in weight or inferiority of quality against sellers shall be forfeited.

If sellers fail to take advantage of this privilege, then it shall be the duty of the buyer to appoint a representative at point of destination to look after sellers' interest in the matter of superintending weighing and sampling and sealing of samples, and such representatives' fees for such work shall be to the charge of the sellers.

RULE 117. If cotton is sold under terms of Rule 105 (a), claims for inferiority of quality must be substantiated by certificates from a board of arbitrators or Committee of Appeals, in conformity with the rules and customs of the city at which the arbitration has been held.

Arbitrations shall only be held on samples, which have been drawn and sealed at point of destination by a party or parties with authority to do so.

Sellers shall have the privilege of appointing their own arbitrators in Liverpool, giving due notice of their names to buyers on the day or before the day on which they render invoices; but notice to that effect given in the course of one season shall not apply to the next season, unless especially renewed.

If an arbitrator appointed by the seller should decline to act, or if the seller should have failed to appoint an arbitrator, then it shall be the duty of the buyer's representative in Europe to appoint a proper party to act on behalf of sellers in the premises.

RULE 119. If free on board cotton is sold under terms of Rule 105, Paragraph A, the buyer shall have the right of weighing and sampling the cotton in Savannah on the following terms:

Weights are to hold out within one (1) per cent. In other respects the provisions of Rule 123 following hereafter, are to apply.

Quality of the whole lot, without rejections, shall be determined by Liverpool, Bremen, or Savannah arbitration at the option of the seller, and, in case of European arbitration, the samples drawn at Savannah shall be sealed up and sent at buyer's expense to Liverpool or Bremen.

The charge for turning down shall be paid by the buyer.

The buyer shall give notice in writing or by telegram to seller, either direct or through a broker, of his intention to rehandle cotton, and the seller shall have forty-eight (48) hours in which to notify buyer of his appointment of a representative to superintend weighing and sampling.

Failing the appointment of such a representative, the weights and samples of the buyer shall be accepted as authentic, and the arbitration on quality shall be held at the buyer's option in Liverpool, Bremen, or Savannah.

The cotton shall be rehandled within four (4) days from the time at which buyer notifies seller of his intention of doing so, unless failure of railroad to turn down the cotton, or bad weather, make a further delay necessary.

RULE 120. If cotton is sold under terms of Rule 105 (a), it shall be transferred on or before the twentieth (20th) day after arrival in Savannah, to a railroad or to a steamer bound direct to a foreign port, which shall have arrived in Savannah not later than on such twentieth day, or to a coastwise steamer which shall sail from Savannah not later than the forty-fifth (45th) day after arrival of cotton in Savannah ; or buyer shall give notice on or before such twentieth day after arrival that he will rehandle the cotton in accordance with the provisions of Rule 119.

If buyer should fail to comply with the provisions of this rule seller's guarantee of weight and quality shall be forfeited.

RULE 121. If cotton is sold under terms of Rule 105 (a), written notice must be given by buyer of any change in seller's shipping marks, and no reclamation shall be allowed on any new mark, unless such notice has been given to seller or his representative in Savannah before the cotton leaves Savannah. The buyer shall have the right to erase all head-brands or private brands, and to substitute other head-brands.

RULE 122. When cotton sold under the f.o.b. rules is compressed in accordance with provisions of Rule 12, the guarantee attaching to the cotton shall be in nowise released or changed.

RULE 123. If cotton is sold under terms of Rule 105, Paragraph B, weight settlement shall be made for uncompressed cotton at Savannah weights ; for compressed cotton at Savannah weights, plus three (3) pounds per bale.

In case of bales having more than eight (8) bands, a deduction of one (1) pound per band shall be allowed for each band in excess of eight (8).

A proper allowance in weight shall be made on every patched bale, if patches have been used except for the purpose of covering sample holes, and a proper allowance in weight shall also be made on every bale, on which the patches used to cover sample holes *exceed three* (3) *pounds in weight.*

RULE 124. When cotton is sold f.o.b. on basis contract, the differences between grades shall be fixed by the differences existing in Savannah at 1 o'clock spot quotations on date of seller's invoice.

RULE 125. In all rules for f.o.b. cotton the words " After arrival " shall mean after the day on which the last bale of a lot had been discharged.

RULE 126. All properly authenticated claims, either on account of loss in weight or quality, shall be paid within ten (10) days after presentation ; such claims, however, must be forwarded, in case of transactions under terms of Rule 105, Paragraph A, from point of destination within forty-five (45) days from the time vessel is discharged, and presented to the seller or his representative in Savannah within seventy (70) days.

RULE 127. In f.o.b. transactions involving a non-member of the Savannah Cotton Exchange, the buyer shall have the right to call for a contract, made out in original and duplicate, and signed by the buyer and seller, respectively. The conditions of the sale in said contract shall be governed by the rules of the Savannah Cotton Exchange.

RULE 128. If cotton is sold under terms of Rule 105 (b), weights and class to be determined in Savannah before compressing, and if for any reason the railroad should compress same before delivery is made, the seller shall be assessed a penalty of four (4) pounds per bale; if, on the other hand, sold weights and class to be determined after compressing, and if for any reason the railroad should deliver same to buyers before compressing, the buyer shall have the privilege of receiving same flat, allowing seller three (3) pounds per bale.

GOVERNING COST FREIGHT, AND COST FREIGHT AND INSURANCE.

RULE 151. Transactions on Cost and Freight, Cost Freight and Insurance, Cost Freight and 6 per cent., or Cost Freight Insurance and 6 per cent. terms for any port, not situated on the Continent of America, shall be considered to have been made in accordance with the terms of the Bremen Cotton Exchange's contract, if the cotton is destined for Bremen, Hamburg, or Amsterdam or Rotterdam, and the conditions of the contract of the Liverpool Cotton Brokers' Association, if the cotton is destined for any other port.

GOVERNING CLEARANCE OF VESSELS.

RULE 200. When a contract is entered into specifying a certain date of clearance, it shall be understood that the word "clearance" means final clearance at Custom House of vessel and cargo, and when such clearance is effected the name of vessel shall be removed from the Freight blackboard of the Exchange.

NEW YORK.

Extract from the Rules of the New York Cotton Exchange, April 2nd, 1906.

RULE 11. False or fraudulently packed cotton is defined as follows: Such bales as may contain any foreign substance, water-packed bales, or bales containing damaged cotton in the interior without any indication of such damage upon the exterior of the bale; also such bales as are plated or composed of good cotton upon the exterior, and decidedly inferior cotton in the interior of the bales in such manner as not to be detected without opening or boring the bales.

Fraudulently packed cotton and bales which have in them over five pounds of sand, seed, or gin-fall, shall be rejected and not be deliverable upon a spot sale, or accepted by the Inspectors in examining and sampling inspected cotton. When mixed-packed cotton is in a bale, the whole bale shall be deemed of the grade of the poorest quality, and if that is below the lowest grade called for in the contract, or shown in the samples at the time of sale, it shall not be deliverable or inspected.

In the event of a disagreement as to the quantity of sand, seed, or gin-fall in any bale or bales, either party, in case of a spot sale, or, in the case of inspected cotton, either the Inspector-in-Chief or the owner of the cotton, may require any such bale or bales to be opened, and the actual quantity of sand, seed, or gin-fall ascertained, all expense and loss incident thereto to be paid by the party in error.

The full weight of sand, seed, or gin-fall decided to be in any bale shall be deducted by the Weighmaster.

Gin-cut cotton, where the extent of gin-cutting is such as to reduce the value of the cotton more than one-half a grade below what it otherwise would be, shall be considered as unmerchantable and shall not be accepted by Inspectors in examining and sampling inspected cotton.

RULE 12. Six iron bands or ropes on uncompressed bales, or a reasonable number of bands or ties on compressed bales, not exceeding in weight *ten pounds* in the aggregate, shall be sufficient for each bale of cotton.

All unnecessary bagging shall be removed from the bales before they are weighed, or a fair and equitable deduction made for the weight of same. Unnecessary bagging shall be understood to mean all bagging not absolutely essential to cover and protect the contents of the bales in a proper manner while in an uncompressed state.

The tare on a bale of cotton shall not exceed an average of *twenty-eight pounds*, including bands and bagging.

In the event of a disagreement as to the quantity of bagging on any bale or bales of cotton submitted for inspection, the Inspector-in-Chief may require such bale or bales (not exceeding ten per cent. of the lot) to be stripped in order to ascertain the tare, which shall be considered the average tare on the lot inspected. All expense and loss incident thereto to be paid by the party in error.

RULE 13. No bale of cotton weighing less than three hundred pounds shall be deemed merchantable, and any buyer may refuse to receive the same.

RULE 14. . . . . If the weather be deemed unsuitable for the delivery of cotton by any party interested in a delivery on any day, the Superintendent of the Exchange, at his request, shall obtain the opinion thereon of three members of the Exchange (not interested in deliveries on that day), and if a majority decide that the weather be unsuitable for the delivery of cotton, the Superintendent shall post their certificate on the bulletin of the Exchange, dating the time of posting, which shall remain posted until a majority of said three members shall decide the weather to be suitable, when it shall be taken from the bulletin and filed, noting the time of removal. During the time such certificate is posted on the bulletin all deliveries of cotton may be suspended, at the option of either party to any delivery; and any delivery suspended under this Rule shall be entitled to an extension of time—two hours more than the time such certificate was posted. The Superintendent shall give a certified copy of said certificate to any member requiring it, on the receipt of fifty cents, and such copy shall be a sufficient authority for the suspension and resumption of delivery of any lot of cotton by the parties to the delivery.

This rule shall apply only to deliveries other than upon contract for future delivery.

RULE 18. After cotton has been examined, received, and passed upon by the broker or agent of the buyer, no claim shall be made against the seller except for fraudulent packing. When a claim is made it shall be in writing and shall state the particulars of the fraudulent packing, the marks by which the cotton was sold, and all other legible marks and numbers. It shall also state the loss sustained by reason of the fraud; such loss being based upon the difference in market value at the date of its discovery between such bale and a bale of cotton of a similar grade sound and in good condition. Such difference in value shall constitute the claim, regardless of the original cost of the cotton, or of any fluctuations in the market of the prices of cotton.

Any claim made in accordance with the above, and verified by oath or affirmation, shall be deemed, *prima facie*, valid in favour of the claimant, and it can only be defeated by the decision of an arbitration, or the Board of Appeals.

Provided that in all cases of claims for fraudulent packing, the party making the claim shall have the right to return, or the seller to demand the return, of such bale or bales. If, upon examination by the Classification Committee, it be ascertained that such claim is well founded, the seller shall receive back the cotton, paying cost of transportation, both from and returning to New York, and shall deliver other bales of the grade originally sold, and, as nearly as practicable, to the same aggregate weight of cotton; the settlement of differences to be based upon the quotations for similar grade on the day on which the discovery of the fraud is made; in all other cases, the settlements to be made as provided for above. Any claims of this nature shall be good, against all sellers, for twelve months from date of sale, provided that due notice of the existence of fraudulent packing be forwarded to them within eight days of its discovery, and the date of such discovery of fraud shall be incorporated in the sworn or affirmed certificate.

RULE 19. . . . . When claims are presented for so-called "country damage" the certificate of the weigher or shipping clerk at the time of shipment, corroborated by the bills of lading, shall be taken as *prima facie* evidence of the condition of the cotton. Failure to obtain remedy from the vessel for delivery at port of destination in improper condition as to exterior of the package shall not invalidate the original evidence.

STATUTES

Adopted at the Second International Congress, held in Manchester, June, 1905.

Object.

1.—The purpose of this International Federation shall be to watch over and protect the common interests of the Industry, and to advise Associations of the action to be taken against any common danger.

2.—The means to be employed are :—

(1) The holding of Congresses of Delegates from the Associations in all countries becoming affiliated with the International Federation.

(2) The Appointment of a Committee of Management, who shall :—

(a) Control the work and expend the monies of the Federation under the instruction of the Congress.

(b) Distribute information of practical value in carrying on and improving the conditions of the Cotton Trade.

(c) Assist in the formation, strengthening, and assimilating of Associations in all Spinning and Manufacturing Centres of the Cotton Industry.

(d) Call together the Delegates to special Congresses when the need shall arise.

(e) Consult the Associations by correspondence, and distribute and collect voting papers from the Associations on any international movement in connection with the Trade.

(f) Take any other action in common interest of the Trade that may be decided upon by the Congress.

Membership.

3.—All Associations of Cotton Spinners and Manufacturers are eligible for affiliation with the International Federation, subject to their acceptance by Committee and Congress.

Financial.

4.—A Levy shall be paid by each Association according to its number of Spindles and Looms.

5.—Spindles shall include Mule, Ring, Throstle, and Doubling. Two Doubling Spindles to be equal to one Mule Spindle.

6.—Each Association joining the Federation shall pay an Entrance Fee of $\frac{1}{100}$ of a penny per Spindle, and one farthing per Loom (one Loom to be equal to 25 Spindles). This Entrance Fee shall include the current year's Levy.

7.—For the year 1905, and each succeeding year until otherwise determined, a Levy shall be made of $\frac{1}{200}$ of a penny per Spindle and one-eighth of a penny per Loom.* Associations are liable for the coming year's Levy unless they have handed in their resignation at least three months before the end of the current year. Resignation forfeits all right to any accumulated funds.

8.—All Levies shall, after the year 1904, be due for payment before the end of September.

9.—In case any Association shall fail to pay its Levy, or send Delegates to the Congress, the name of such Association shall be placed before the Congress to take what steps it may think fit.

Offices.

10.—The Offices of the Federation shall be in Manchester. Any change in the headquarters must be by decision of the Annual Congress.

By-Laws for Committee.

11.—The Committee of Management shall consist of one Delegate from each country affiliated to the International Federation, and the Committee, from its own members, shall appoint a Chairman, Vice-Chairman, and two Honorary Treasurers of the Federation. Each country shall appoint its own Delegate. The country which the Chairman of the Committee of Management represents shall be entitled to another representative on the Committee.

12.—For the Committee of Management, five shall form a quorum.

13.—Each country shall have the right to appoint a substitute to attend the meetings of the Committee in the event of its representative being unable to attend. This substitute, in order to become conversant with the work of the Committee, may accompany the duly appointed representative to any meetings of Committee, if the Associations in his country so desire, but in the latter case his expenses will not be paid

* The Levy for the year 1907 has been fixed at $\frac{1}{100}$ of a penny per Spindle, and ¼d. per Loom.

by the International Federation, nor has he power to vote, and it is not expected that he will take part in discussions at the meetings.

14.—The Committee shall appoint its Secretary, or Secretaries, and other Assistants, Bankers, Auditors, and Solicitors, and such appointments shall be confirmed annually or otherwise.

15.—The Committee shall have power to appoint, from its own body, any of its members for the purpose of obtaining information, or undertaking preparatory work, in connection with any of the objects of the Federation. Such information or preparatory work to be reported upon periodically to the Committee through its Secretary.

16.—Should a position as Officer or Member of the Committee become vacant by death or resignation, the Committee shall have power to fill such position, if an officer, from its own body; if a Member of the Committee, from the Delegates from the country represented.

17.—The Committee shall meet when it is desirable, but where possible the consultation shall be done by correspondence. When possible, at least four weeks' notice shall be given of any meeting of the Committee of Management.

18.—On the request of one-fourth of the Members of the Committee (which always includes the Officers), the Chairman shall call a meeting.

Expenses of Members of Committee.

19.—The Members of the Committee of Management, when attending meetings of the Committee, shall be allowed first-class fares and 40 francs per day for out-of-pocket expenses.

Bank Account.

20.—The Bank Account shall be in the names of the Chairman of the Committee and the Secretary at headquarters, and all cheques shall be signed by the Chairman, or one of the Honorary Treasurers, and countersigned by one of the Secretaries.

21.—The Bank Account shall not be overdrawn, and no expenditure or liability shall be incurred for which there are no funds in the Bank.

Close of Financial Year.

22.—The financial year shall end December 31st.

Dissolution.

23.—In case of dissolution the funds in hand shall be divided on the basis of the contributions made by the affiliated Associations.

Regulations for Congress.

24.—The Annual Congress shall be in a different country each year.

25.—When possible, at least four weeks' notice shall be given of any meeting of Congress.

26.—The Associations in each country shall appoint Delegates to attend the Congresses. No restriction shall be placed on the number of Delegates any Association may send, but the voting power shall be as follows :—

One vote for each Million Spindles or part thereof.

One vote for each 40,000 Looms or part thereof, but not more than Twenty Votes to be given by any one country.

Voting shall be by the showing of hands, but shall be by ballot if desired by twenty-five per cent. of those present empowered to vote.

27.—Each Association shall, before the end of March, appoint its Delegates for the following Congress, and shall at once intimate to the Secretary the names, postal addresses, and cable addresses of such Delegates.

28.—Fourteen days' notice shall, if possible, be given to the Secretary at headquarters of any change in the appointment of Delegates.

29.—The expenses of Delegates shall be paid by the Association they represent, or by the Delegates themselves.

30.—If a Delegate be unable to be present, he may be replaced by another representative of his Association. This representative, however, must present satisfactory credentials to the Committee.

31.—Any Association wishing to bring a subject before the Annual Congress, or propose the alteration of a Rule, shall forward its resolution to the Secretary at headquarters before the end of March.

32.—The member of the Committee of Management representing the country in which the Congress assembles shall preside over such Congress. The names of the Delegates shall be called over; after which the Chairman of the Committee of Management shall present a report, to be followed by the reading of the Financial Statement.

33.—The remaining proceedings shall be arranged by the Committee of Management, but shall be subject to alteration should the Congress desire.

34.—Permission may be granted for the discussion of matters which do not comply with Rule 31, but no vote can be taken.

35.—In order to expedite the discussions of the Congress, the introducer of any subject shall be allowed one hour. Subsequent speakers shall be allowed fifteen minutes, which the Chairman may at his discretion extend to thirty minutes.

36.—Delegates may speak in English, French, or German, but it is desirable that they use the English language in order to obviate, as far as possible, the necessity of translation.

37.—No resolution in any Congress shall be voted upon except 75 per cent. of the Delegates empowered to vote are present, and no resolution shall be carried except by a majority of 75 per cent. of those voting.

38.—No resolution shall be voted upon at the sitting in which it has been introduced (unless a 75 per cent. majority be in favour of such vote being taken), except for the appointment of Officers of the Congress and the fixing of the next place of the Congress.

39.—The place of meeting for the next Congress shall be decided upon at the last meeting of a Congress.

Official Reporters.

40.—Official Reporters shall be appointed to take a verbatim report of all proceedings, and submit a general report of the day's proceedings for the Committee's approval before giving it to the Press.

Visitors.

41.—No strangers shall be allowed to attend the sittings of Congress, except they have a special written permit from the Committee.

Voting by Correspondence.

42.—Voting by correspondence with the Associations shall be by Spindles (one Loom equalling 25 Spindles, and two Doubling Spindles to be equal to one Mule Spindle). The ratio of voting power shall be as per Rule 26.

Alteration of Rules.

43.—These Rules may be added to, varied, or rescinded at any Annual Congress, but notice of any proposed alteration shall be sent by the Secretary with the notice convening the Annual Congress.

Local Committees.

44.—Local Committees may be formed in each country for the purpose of discussing questions of international interest. The meeting forming such Local Committee shall be convened by the various representatives on the Committee of Management.

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ISSUED BY

The International Federation of Master Cotton Spinners' and Manufacturers' Associations

IN REGARD
TO THE CONSUMPTION OF COTTON AND
STOCKS OF COTTON IN SPINNERS' HANDS.

November 24th, 1905.
April 2nd, 1906.
September 27th, 1906.

AND THE STATISTICS ISSUED BY THE DEPARTMENT
OF COMMERCE AND LABOUR, WASHINGTON,
OCTOBER 5th, 1906.

[COPY.]

Statistics of the International Federation.

Strictly Private and Confidential.
Not to be given to the Press.

DAVID SMITH, GARNETT, & Co.,
Chartered Accountants,

22, BOOTH STREET, MANCHESTER,
November 24th, 1905.

TO THE INTERNATIONAL FEDERATION OF MASTER COTTON SPINNERS' AND MANUFACTURERS' ASSOCIATIONS.

GENTLEMEN,

We beg to Report that we have received Returns, respecting the Consumption of Cotton for the year ending 31st August, 1905, and the Stocks of Cotton in the hands of Spinners at the end of that period, as follow :—

CONSUMPTION.

Country.	Spindles.	Consumption of Cotton, 1st September, 1904, to 31st August, 1905, in Bales.				
		American.	East Indian.	Egyptian.	Sundries.	Total.
Great Britain....	28,695,599	1,828,238	34,981	213,375	44,136	2,120,730
Germany.....	8,100,801	1,059,481	315,900	96,781	27,573	1,499,735
France.....	4,133,311	463,499	75,021	38,999	11,097	588,616
Italy	2,405,274	483,379	182,624	13,960	9,034	688,997
Spain	725,000	125,110	9,739	11,088	3,896	149,833
Switzerland	1,424,754	66,067	6,066	27,110	2,139	101,382
Portugal	334,190	43,983	44	377	27,825	72,229
Belgium	908,000	104,331	43,077	1,055	28	148,491
Total	46,726,929	4,174,088	667,452	402,745	125,728	5,370,013

STOCKS.

Country.	Spindles.	Cotton in Stock, 31st August, 1905, in Bales.				
		American.	East Indian.	Egyptian.	Sundries.	Total.
Great Britain....	28,695,599	182,786	4,384	39,207	21,639	248,016
Germany.....	8,100,801	188,797	90,788	24,024	6,485	310,094
France.....	4,133,311	51,053	26,914	8,523	4,115	90,605
Italy	2,405,274	130,921	55,520	3,380	2,858	192,679
Spain	725,000	16,700	1,300	1,480	520	20,000
Switzerland	1,424,754	13,918	1,743	6,595	675	22,931
Portugal	334,190	14,026	33	161	7,350	21,570
Belgium	908,000	17,544	11,476	313	9	29,342
Total	46,726,929	615,745	192,158	83,683	43,651	935,237

Returns have not been received from Austria and Russia, owing, we understand, to the disturbed state of affairs in those countries. With regard to the Returns generally, it should be stated that they have been asked for only from the members of Associations which are federated with the International Association, and not from the whole of the trade. In the case of Great Britain, Returns have been received from the owners of 89 per cent. of the Spindles in respect of which Returns were invited. In the case of each of the other countries, the percentage of Returns received, as compared with the *total* number of Spindles running, is : Germany, 92 per cent. ; France 67 per cent. ; Italy, 87 per cent. ; Spain, 43 per cent. ; Switzerland, 98 per cent. ; Portugal, 100 per cent ; Belgium, 93 per cent.

The aggregate of the Returns represents 68 per cent. of the total Spindles running in the Countries specified.

We have prepared, from the Returns from which the figures given above have been compiled and from information supplied to us by the officers of the Continental Associations, the following table, showing the estimated total Spindles, Consumption, and Stock for each of the Countries mentioned :—

Country.	Total Spindles.	Estimated Total Consumption 1st Sept., 1904, to 31st Aug., 1905.	Estimated Stocks in the hands of Spinners 31st Aug., 1905.
		Bales.	Bales.
Great Britain	46,000,000	3,600,000	400,000
Germany	8,800,000	1,625,000	336,000
France	6,200,000	990,000	153,000
Italy	2,760,000	770,000	220,000
Spain	1,700,000	351,000	47,000
Switzerland	1,456,546	103,600	23,400
Portugal	334,190	72,229	21,570
Belgium	972,000	159,300	31,580
	68,222,736	7,671,129	1,232,550

It will be easily understood that in making a new departure there have been for the first time difficulties which will not arise again ; and as some of the figures have come in only at the last moment, the table of estimated consumption and stocks may not be absolutely accurate. In future, it will be possible in a shorter time to state the result of any Returns which may be obtained.

Pursuant to the instructions of the Committee of the International Cotton Federation, given at their meetings in Paris on the 13th, 14th, and 15th instant, this Report is being issued by us so as to reach the members of the Associations in each country at the same time, and the members of the International Committee are unaware of the contents, and they will receive the Report only at the same time as the other members of the Associations.

We are, Gentlemen,

Yours obediently,

DAVID SMITH, GARNETT, & Co.

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DAVID SMITH, GARNETT, & Co.,
Chartered Accountants.
Telegrams: "AUDIT, MANCHESTER."
Telephone No. 1065. 22, BOOTH STREET,
MANCHESTER,
2nd April, 1906.

TO THE INTERNATIONAL FEDERATION OF MASTER COTTON SPINNERS' AND MANUFACTURERS' ASSOCIATIONS.

GENTLEMEN,

We beg to Report that we have received Returns respecting the Stocks of Cotton in the hands of Spinners on the 1st March, 1906, as follow:—

STOCKS.

Country.	Spindles.	Cotton in Stock 1st March, 1906, in Bales.				
		American.	East Indian.	Egyptian.	Sundries.	Total.
Great Britain....	31,331,372	245,681	8,665	80,487	45,262	380,095
Germany.....	8,569,738	175,121	85,441	26,438	7,800	294,800
France.....	5,353,600	80,202	23,715	13,014	6,938	123,869
Italy	2,418,900	120,432	53,885	7,241	3,951	185,509
Spain	900,000	13,700	6,587	3,081	1,678	25,046
Switzerland ..	1,414,498	14,986	1,978	11,794	1,606	30,364
Portugal.....	280,000	8,183	—	—	9,281	17,464
Belgium	1,061,879	23,760	22,466	269	377	46,872
Austria	2,967,550	72,083	52,192	6,876	2,010	133,161
Total	54,297,537	754,148	254,929	149,200	78,903	1,237,180

With regard to the figures for Great Britain it should be stated that Returns have only been asked for from those Spinners who are members of Associations affiliated with the International Federation, and not from the whole of the trade. It will be observed that replies have been received from the owners of 2,635,773 more spindles than made Returns as at 31st August last.

We have prepared from the Returns from which the figures given above have been compiled, and from information supplied to us by the officers of the Continental Associations, the following table, showing the total estimated Spindles and Stock for each of the Countries mentioned :—

ESTIMATE OF SPINDLES AND STOCKS, 1ST MARCH, 1906.

Country.	Total Spindles.	Estimated Stocks of all Growths in the Hands of Spinners, 1st, March, 1906.
		Bales.
Great Britain	47,500,000	569,000
Germany	8,800,000	304,800
France	6,400,000	148,080
Italy	2,800,000	214,700
Spain	1,700,000	47,300
Switzerland	1,462,800	31,400
Portugal.....	350,000	21,830
Belgium	1,084,700	47,880
Austria	3,297,300	148,000
Total	73,394,800	1,532,990

We are, Gentlemen,
Yours obediently,
DAVID SMITH, GARNETT, & Co.

[COPY]

STRICTLY PRIVATE AND CONFIDENTIAL.—Printed for and at the expense of the International Federation for distribution among those who have supplied the particulars asked for.

22, ST. MARY'S GATE, MANCHESTER,
27th September, 1906.

DEAR SIR, OR SIRS,

STATISTICS OF CONSUMPTION OF COTTON FOR THE YEAR ENDING 31ST AUGUST, 1906, AND THE STOCKS OF COTTON IN SPINNERS' HANDS ON THE 31ST AUGUST, 1906.

I beg to hand you herewith SUMMARY OF RETURNS received :—

Countries.	Number of Spinning Spindles. Actual Returns.*	CONSUMPTION IN BALES.					Estimated Total Number of Spinning Spindles.*
		American.	East Indian.	Egyptian.	Sundries.	Total.	
Great Britain	41,885,774	2,815,331	51,313	316,598	175,466	3,358,708	48,826,144**
Germany....	8,864,618	1,094,025	357,834	112,940	57,205	1,622,004	9,730,209
France.....	6,402,757	685,435	113,248	67,252	24,177	890,112	6,702,800
Austria	3,377,259	402,077	209,443	25,208	7,636	644,364	3,621,220
Italy	1,910,919	366,917	153,041	14,711	7,105	541,774	3,500,000
Switzerland	1,395,436	58,355	4,990	27,413	1,770	92,528	1,462,752
Belgium ..	1,042,612	108,987	67,697	1,546	709	178,939	1,122,000
Spain	1,000,000	150,858	28,545	13,014	12,398	204,815	1,800,000
Portugal	192,928	22,223	—	71	15,843	38,137	350,000
Total ..	66,072,303	5,704,208	986,111	578,753	302,309	7,571,381	77,115,125

Countries.	Number of Spinning Spindles. Actual Returns.*	STOCKS IN BALES.					Estimated Total Number of Spinning Spindles.*
		American.	East Indian.	Egyptian.	Sundries.	Total.	
Great Britain	41,885,774	276,844	15,913	53,849	39,750	386,356	48,826,144**
Germany....	8,864,618	169,898	128,046	24,963	16,804	339,711	9,730,209
France.....	6,402,757	67,167	43,409	13,322	5,181	129,079	6,702,800
Austria	3,377,259	57,230	83,072	4,006	1,077	145,385	3,621,220
Italy	1,910,919	81,323	46,138	2,622	3,277	133,360	3,500,000
Switzerland...	1,395,436	8,766	2,405	6,051	780	18,002	1,462,752
Belgium	1,042,612	13,938	20,576	737	394	35,645	1,122,000
Spain	1,000,000	4,560	3,558	2,224	1,550	11,892	1,800,000
Portugal	192,928	4,556	—	141	6,483	11,180	350,000
Total ..	66,072,303	684,282	343,117	107,915	75,296	1,210,610	77,115,125

* Exclusive of Waste and Doubling Spindles.

** The number of Spindles over those in the "Actual Returns" has been arrived at by a careful addition of the Spindles of the firms which have not sent in Returns, and for this purpose the most reliable Textile Directories have been consulted.—The March Statistics included Waste Spinning Spindles.

On the two previous occasions, for the purpose of arriving at the Total Stocks and Consumption of all the Cotton Spinners an estimate was made of the stocks and consumption of those firms who did not send in returns. As this time, however, *all* the Cotton Spinners of Great Britain and of the Continent have been asked to send in statistical returns, it has been suggested that many Spinners would prefer to make this estimate for themselves, and I have therefore been instructed to omit the same.

I am, dear Sir, or Sirs,
Yours respectfully,
ARNO SCHMIDT, *Secretary*.

The Statistics of Consumption and Stock issued by the Department of Commerce and Labour, Washington, are given in the following circular, and will be found useful in arriving at the figures of the World's Consumption and Stocks of American Cotton, in connection with the preceding Statistics of the International Federation, dated 27th Sept., 1906.

[COPY]

DEPARTMENT OF COMMERCE AND LABOUR,
Bureau of the Census,
Washington, October 5th, 1906.

Hon. S. N. D. North,
Director of the Census.

Sir,—I have the honour to submit the following preliminary summary of the quantity of cotton taken for consumption by manufacturers and the quantity consumed during the year ending August 31st, 1906, and of the stocks of cotton held by manufacturers at the close of the year in the "Cotton Growing States," and in "All Other States."

United States.	Taken for Consumption (Bales).	Consumed (Bales).	Stocks held by Manufacturers, August 31st, 1906 (Bales).
Total	4,784,274	4,871,168	675,987
Cotton Growing States	2,315,614	2,370,038	177,084
All Other States	2,468,660	2,501,130	498,903

The statistics of cotton taken and consumed are for all establishments using raw cotton, including cotton mills, woollen mills, hosiery and knit goods establishments, those engaged in the manufacture of mattresses, and the like. The totals include foreign cotton amounting to 9,887 bales taken and 10,100 consumed by manufacturers in the "Cotton Growing States," and 94,722 bales taken and 94,120 consumed by manufacturers in "All Other States." The statistics of both domestic and foreign cotton are in running bales.

The full report giving, by States, detailed statistics and other interesting data regarding the cotton industry in this and other countries, will be published the latter part of this month.

Very respectfully,
W. M. STEUART,
Chief Statistician for Manufactures.

Approved: S. N. D. NORTH, Director.

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